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RESOLUTE, THE FIRST OF THE CUP DEFENDERS UNDER SAIL, ON HER EARLY TRIAL SPINS

The America's Cup Defenders

By HERBERT L. STONE

Photographs by A. C. Church and Others

AFTER months of waiting, marked by well-guarded secrecy and all sorts of wild guesses as to what Messrs. Herreshoff, Gardner and Owen would turn out, the three boats built for the defense of the America's Cup are overboard, and for the first time we know something definite regarding them. Out of the mass of speculation and rumor that sifted through locked doors some of the statements made were bound to prove correct, though the great mass of it was not accurate, and much of it was not even probable, and served no good purpose.

The Resolute

The first of the three boats to take the water was the Herreshoff designed and built sloop Resolute, commonly known as the flag-officers' boat, and owned by the New York Yacht Club syndicate, headed by Cornelius Vanderbilt.

She went overboard in the early evening of April 25, being christened by Miss Grace Vanderbilt. There was a great deal of curiosity shown as to the kind of boat Herreshoff would turn out for the Cup defense under the Universal Rule, which precluded the extremely flat, light displacement type, as was Reliance, the last defender of 1903. Taking her by-and-large the new boat shows quite a close resemblance to the 50-footers which Herreshoff turned out last year, although there is naturally a marked refinement over those boats, and she is larger and more powerful, with not quite such a long forward overhang.

She is a centerboard boat, as, indeed, are all of the new defenders, the designer going the limit of draft, 13.75 feet, allowed under the Universal Rule without incurring penalty in a boat of 75 feet waterline length. The board is of moderate size and works in a slot through the lead keel.

The profile shows almost a straight line from the stem head to the lead keel, while the stern post and rudder have a rake of somewhat less than 45 degrees, and conform to the usual Herreshoff practice. The stern overhang is short and chopped off at the transom, resembling very much the "fifties" and also the older class of New York 30-footers. Her midship section shows a fairly full underwater body, while the forward sections are sharp, with no evidence of hollow sections or concave fore and aft lines.

No dimensions have been given out, but the boat is just under 75 feet waterline length, probably 74 feet 9 inches, and about 105 feet or 106 feet long overall. She is the narrowest of the three boats, with a beam of approximately 21 feet 4 inches. No authoritative sail area figures have been given out, but, from calculations worked out from spar measurements, it appears to be about 8,250 square feet, the smallest of the three boats. Likewise the weight of the lead keel is not known. It is probably about 60 tons, and is covered for about two feet by the bronze plating and by brass sheeting. There is good dead rise with rather easy bilges, and the usual straight Herreshoff sheer, with a decided slope from forward aft.

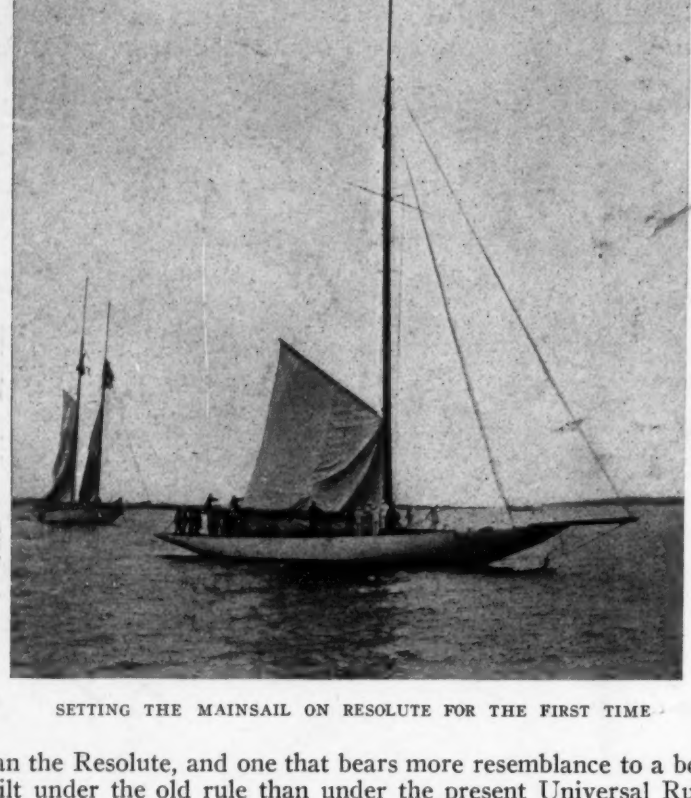
In construction the Resolute follows closely that of the last two or three Herreshoff Cup defenders. It consists of a system of web frames spaced about 6 feet apart, and longitudinal frames holding them together and stiffening the boat. She is planked with manganese bronze, while the deck is of aluminum plates, canvas covered. She has a small rail about 2 inches high with a foot rail inside of it.

The Defiance

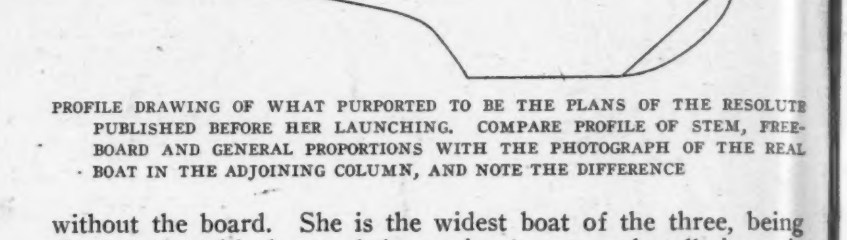
The second boat to go over was the Owen-designed sloop Defiance, built at the Bath Iron Works, Bath, Me., for a New York and Philadelphia syndicate, headed by George M. Pynchon of the sloop Istalena, and E. Walter Clark, owner of the schooner Irolita, formerly Queen. She was launched on May 11, going overboard bow first, and was christened by Miss Frances Clark, daughter of C[illegible]modare Clark, breaking a bottle of champagne over the bras[illegible]apstan forward.

In [illegible]e Defiance, Owen has turned out a considerably larger boat

A HARD FIGHT FOR THE WEATHER BERTH. IROLITA (IN THE FOREGROUND) AND ELENA. THE FORMER IS OWNED BY E. W. CLARK, WHO IS THIS YEAR ONE OF THE SYNDICATE BUILDING THE



SETTING THE MAINSAIL ON RESOLUTE FOR THE FIRST TIME

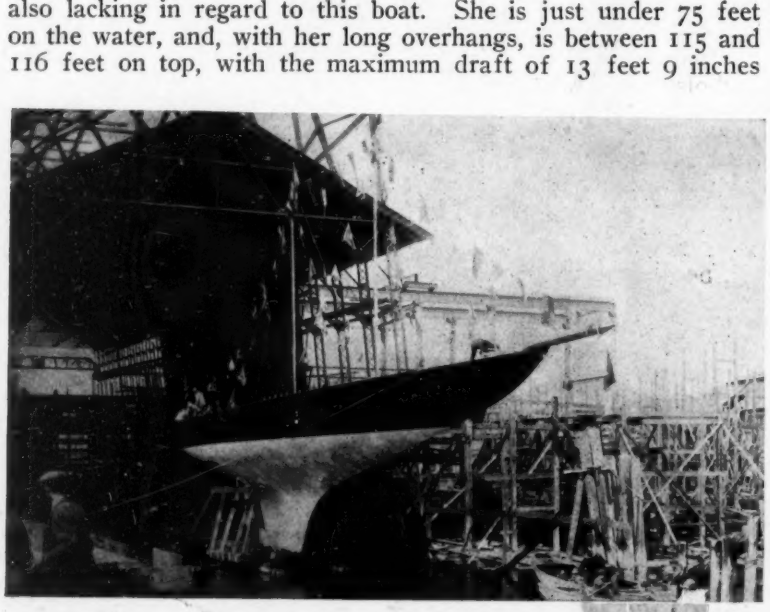


PROFILE DRAWING OF WHAT PURPORTED TO BE THE PLANS OF THE RESOLUTE PUBLISHED BEFORE HER LAUNCHING. COMPARE PROFILE OF STEM, FREEBOARD AND GENERAL PROPORTIONS WITH THE PHOTOGRAPH OF THE REAL BOAT IN THE ADJOINING COLUMN, AND NOTE THE DIFFERENCE

than the Resolute, and one that bears more resemblance to a boat built under the old rule than under the present Universal Rule. By this I mean that the ends are long drawn out and the forward profile line somewhat flat, while the body looks rather shallow and the bilges fairly hard. Yet with all this, she is an exceedingly sweet looking boat with easy and pleasing lines, in spite of the fact that a number of newspapers have described her as "brute-like." There is nothing of the "brute" about her, and while her forward overhang does not resemble closely the P boats that one associates with this designer, the forward sections are not flat as in the case of Reliance. In fact, some of the sections are pressed in a little, as if an effort to save penalty on quarter-beam.

The photographs published here give a very good idea of both of her midship section and profile. The *exact* dimensions are also lacking in regard to this boat. She is just under 75 feet on the water, and, with her long overhangs, is between 115 and 116 feet on top, with the maximum draft of 13 feet 9 inches without the board. She is the widest boat of the three, being about 22 feet 6 inches, and she carries an extremely tall rig, as is the case in many of Owen's boats, such as the two Dorellos. The mast is stepped well forward, giving her a big mainsail and a rather small fore triangle, and the mast is unusually high, the lower mast, which is of steel, being about 112 feet in length, with a wooden topmast some 40 feet long. It is said that she will carry a single headsail, though she has not been rigged at this writing. This fact is open to doubt, although it is the Owen practice on boats of the Dorello type.

The Defiance is built of wood over a steel frame. The frames are spaced about 18 inches and are stiffened by web frames at intervals and by diagonal straps. The planking is double thickness, the inner skin being of ¾-inch Oregon pine and the outer one of 1¼-inch mahogany. The deck is of wood, finished bright, and the rudder is also of wood. No figures as to sail area have been given out, but it is estimated that she will carry over 9,000 square feet. She is steered by a wheel.



THE OWEN-DESIGNED BOAT DEFIANCE READY TO GO OVERBOA

The Vanitie

The last boat to be launched was the Vanitie, designed by William Gardner for Mr. Alexander S. Cochran, which went overboard from Lawley's yard on May 14, being christened by Miss Dolly Bowen, the six-year-old niece of the owner. This boat is the longest of the three, being approximately 119 feet overall and the same waterline length as the others, with long, shapely ends, the bow being slender and slightly hollow after the usual Gardner type, as exemplified in his recent Class P boats. The entrance is sharp and fine, with an easy sweep to the midship section, which is rather full. The boat has good dead rise with moderate bilges, not too hard, and the stern overhang is moderate and graceful. The sheer, what there is of it, is pleasing, and, taking it all in all, the boat bears the Gardner stamp of grace and beauty. She has a beam of about 22 feet, slightly less than the Defiance, and goes the limit of draft, with a centerboard. She is plated with manganese bronze over a steel frame with some eight web frames, spaced throughout her length for additional stiffening. The sail area is said to be about 9,000 square feet in a well-proportioned and evenly balanced rig. Unlike the other boats, she has a rail some five inches high, which rather adds to the appearance of the boat.

WHEN RESOLUTE'S PEAK HALYARD BLOCK BROKE ON HER FIRST DAY'S SAIL

GEORGE OWEN, THE DESIGNER, AND MISS FRANCES CLARK, WHO CHRISTENED DEFIANCE, AT THE LAUNCHING

DEFIANCE AS SHE SLID OVERBOARD BOW FIRST. IN SPITE OF HER LONG ENDS SHE HAS A GRACEFUL AND WELL TURNED HULL

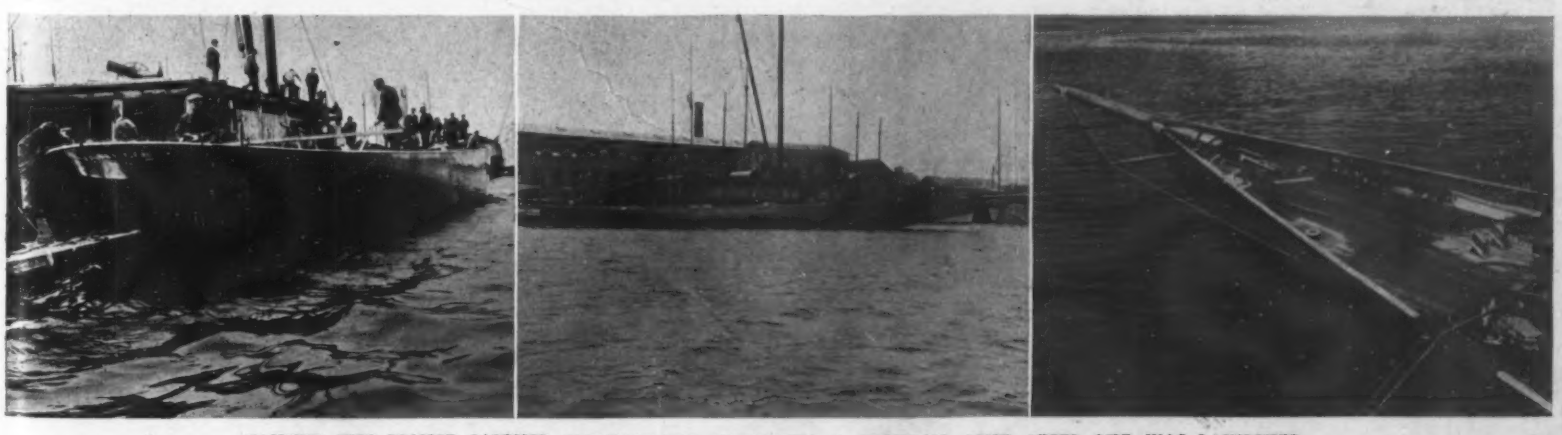
At this writing only one of the boats (Resolute) has been under sail, and, of course, nothing can be told of their relative merits. The Herreshoff boat has had three or four spins, mostly for sail-stretching purposes, and no attempt has been made to drive her. At first she met with one or two minor mishaps which might fall to the lot of any new boat. In the first day's sail a peak halyard block broke under the strain, letting the gaff slack off several feet, which resulted in the leach whipping badly and breaking a number of battens. Later she had trouble with her centerboard, the pennant either breaking or jamming so that she had to be hauled out to have it repaired. Her wooden gaff is also said to have buckled somewhat, and a hollow steel one was substituted in its stead. All of which tends to show that the limit of lightness in the rig of a cup defender has about been reached.

Of the three boats, Defiance is the largest, though not actually the longest, and it is probable that when they are measured it will be found that she has to allow both of the others time, and Vanitie in turn will have to allow Resolute time. How much cannot be told until the boats are measured. Probably the difference in time allowance between the three will not be much over three minutes in a 30-mile course. Whether or not this will be enough to allow the smaller boat to win is also something that the season will have to show.

It may also be stated that each of the three boats has two complete rigs, including mast, spars, sails, etc., and none of them will be caught napping in being inadequately rigged.

Probably never before has so much in the way of conjecture and such a quantity of "slush" been written about cup defenders as this year. So much that was contradictory appeared in the various newspapers that no one knew what to believe and what not to believe, except that most it was so wide of the mark that those who knew could see that it was merely conjecture. Shortly before the boats were launched, what purported to be the plans of the three boats were published in a New York paper. It stands to reason that the man who got these plans up had not had access to the designers' plans of the three boats, and, as a matter of fact, when the boats were launched a few weeks later, it was seen that in a number of instances the published plans were very wide of the truth. One of the boats, Resolute, was shown in the plans with a very decided curve to the stem above the waterline, whereas her real profile is practically a straight line from stem head to the lead of the keel, while she has considerably more displacement than the plans indicated. Another statement that appeared was that none of the boats would have over 7,000 square feet of sail, that amount being all that a 75-footer could carry under the rules. Everyone knows that there is no fixed limit in figures to the sail area on any specified rating, and the writer in question evidently surmised that the boats, because they were to be 75 feet on the water, would rate 75, whereas they will rate considerably over this, and two of them carry over 9,000 feet.

There is a rumor that Nicholson, the English designer, by reason of certain information that leaked out concerning the American boats, has abandoned work on the first challenger for Sir Thomas Lipton, after she was well along, and started on an entirely new boat, it having been given out at the yard that there had been a delay in the building due to some defects found in the plating. Whether or not this was the reason, or whether Nicholson merely saw a chance to improve on his first design, we do not know; but we do know that the challenger will not be launched until the latter part of May, two months after she was supposed to be ready, and those that are in a position to know say that Nicholson has built a second boat after having the first one well along. The challenger, it is stated, will also be a centerboard boat very much the same type as the American craft, and will be double planked with wood over a steel frame.



VANITIE, THE BRONZE GARDNER CREATION FOR ALEXANDER S. COCHRAN, JUST AFTER SHE WAS LAUNCHED

With the Newfoundland Sealing Fleet

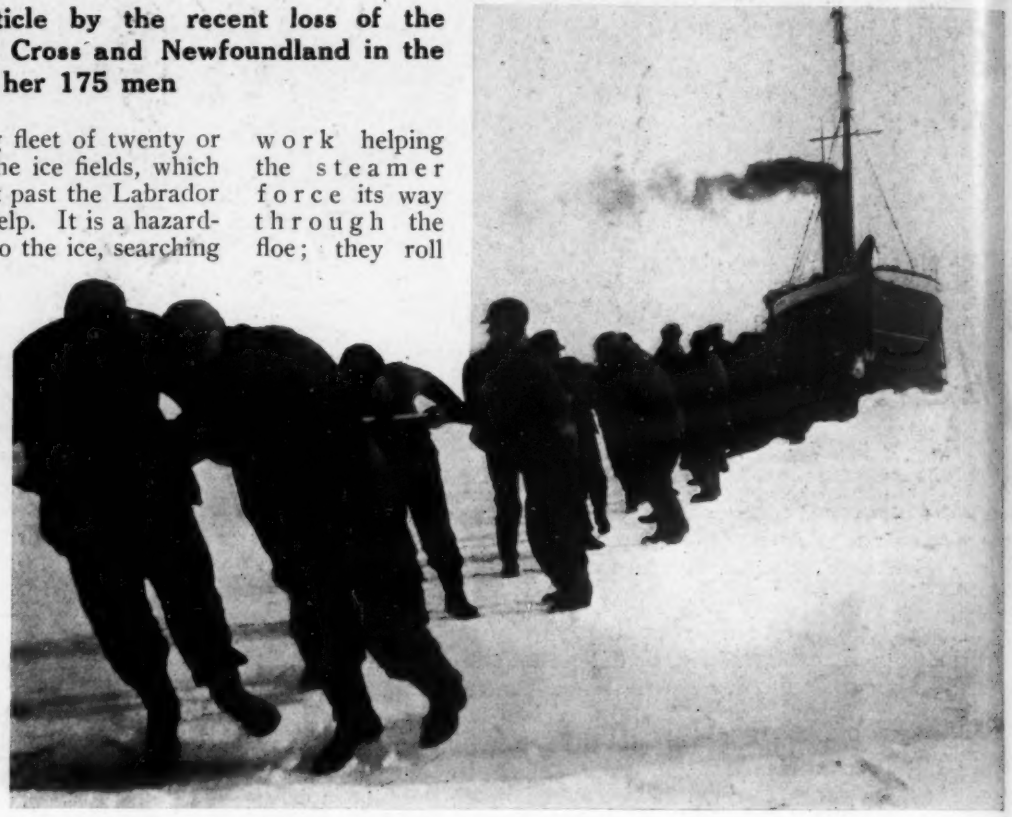
By GEORGE HARDING

Unusual interest is lent to this article by the recent loss of the Newfoundland sealing vessels Southern Cross and Newfoundland in the Labrador ice; the former carrying with her 175 men

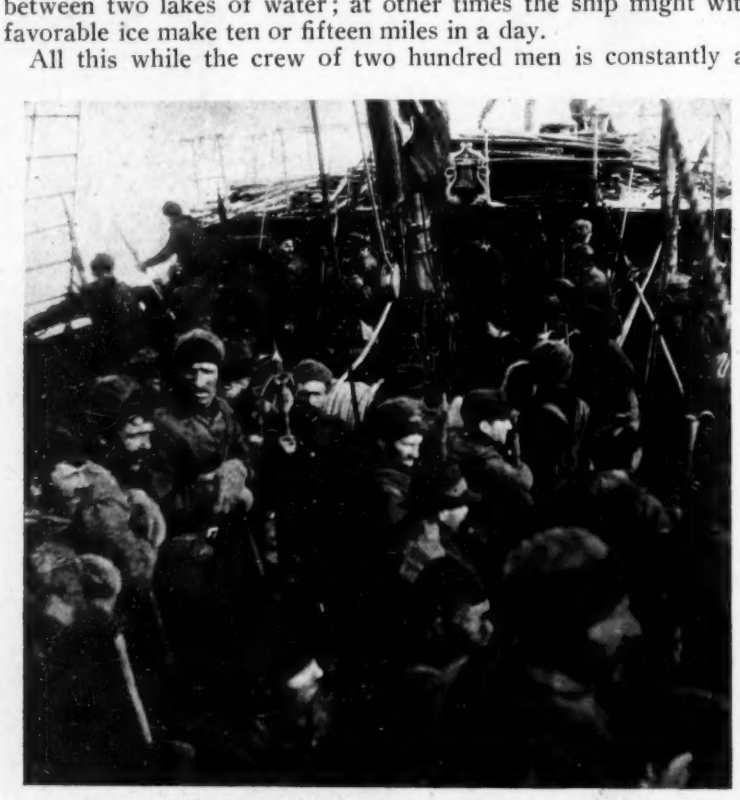
EVERY March the Newfoundland sealing fleet of twenty or more steamers puts to sea, bound to the ice fields, which drift south with the great polar current past the Labrador coast. On this ice great herds of hair seals whelp. It is a hazardous voyage. The steamers force their way into the ice, searching every mile of the surface for the seals, and from the moment they enter the pack until the day they leave it there is a strong possibility of catastrophe to both ships and crews. The ice is swept about by the winds and tides of the North Atlantic; at times the wind packs it so tightly that immense sheets "rafter"—that is, are forced together, overlapping, grinding, and crushing one against the other. Steamers caught at such times are in imminent danger of disaster. At other times, the ice goes abroad without warning, separating whole crews from their vessels. Sudden blizzards and gales are common, a constant menace to the crews, who often have to travel ten miles or more over the ice to the seals.

The steamer's course through the ice is picked out by the captain, who climbs to the masthead, and from this elevation he steers for the open leads of water which run far into the flow. Solid ice frequently blocks the way, and when headway is lost the engines are reversed and the steamer goes astern for a distance of several times her length, then with full speed ahead she crashes her way into the ice. This is repeated continually. At times it takes an entire day to butt through a fence of half a mile in extent, between two lakes of water; at other times the ship might with favorable ice make ten or fifteen miles in a day.

All this while the crew of two hundred men is constantly at work helping the steamer force its way through the floe; they roll the ship, running from one side of the deck to the other to prevent her jamming in tight ice, or they take to the ice and with a long bow line aid in steering her through the cracks, or, running ahead, help haul the ship along. Steamers often jam in heavy sheet ice, when the ice must be blasted clear and chopped away by the crew, who frequently work for several days freeing a steamer.



THE CREW HELPING TO HAUL THE SHIP THROUGH THE ICE OR INTO A LANE

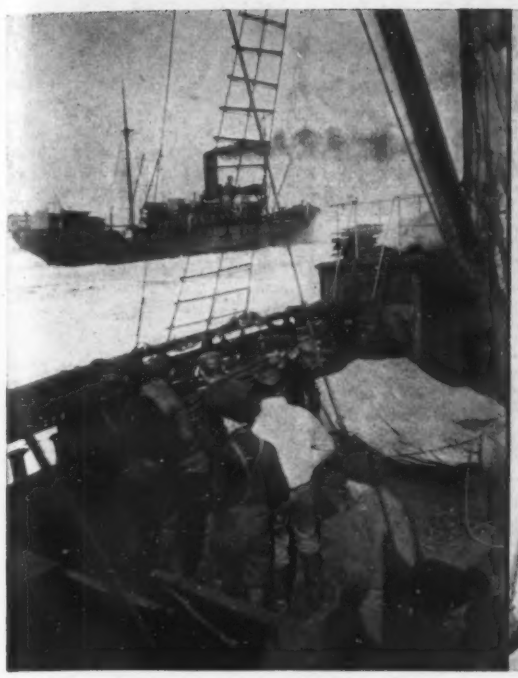


SEALING VESSELS ARE MANNED LIKE PIRATES. THE CREWS ARE EVER READY TO TAKE TO THE ICE ON THE FIRST SIGN OF SEALS

Somewhere in this immense expanse of ice, two hundred miles in width and five hundred miles long, reaching from north of the Straits of Belle Isle south to the latitude of Cape Race, the seals will be found. The only trail the sealing captain has in the search is the general course taken by the herds of old seals seen as they travel in search of fish. It is a very slight trail, for the seals travel under the ice, only rising to blow for a moment or so in widely separated lakes of water, then lost to sight. Some years they are found on the outer edge of the floe, sometimes close in shore, but most frequently the whelping ice is broken into small strings and scattered all through the heavy pack ice.

Every captain, after due consideration of the prevailing winds, forms a definite idea where the whelping ice will be found, and ceaselessly drives his steamer and crew until the goal is reached. The prize is well worth the effort, for the first ship to reach the seals is certain of a bumper trip and a speedy return to port. Over anxiety to reach the seals compels captains to push ahead, no matter what the condition of weather, and frequently in fog or snowstorms ships have steamed within a few miles of the seals and passed by without seeing them, leaving them to more cautious skippers. A few years ago the entire fleet missed the seals. The captain of the Kite, more cautious than the rest of the skippers, was the only master to secure a full catch. Instead of following in the wake of the fleet, which was pushing ahead in a snowstorm, he slowed his vessel down, looked carefully about, and a few miles to the eastward found himself in the thick of the patch, while the rest of the fleet was unconsciously steaming further away every hour.

All the time the steamer is in the ice she is drifting south with



FREQUENTLY TWO SHIPS WORK TOGETHER—ONE CUTTING A CHANNEL, THE OTHER FREEING HER WHEN SHE JAMS

ICE-COVERED HUNTERS CLIMBING ABOARD SHIP

SEAL HUNTERS LEAVING THE SHIP FOR THE DAY'S TOIL ON THE HEAVING AND WRITHING ICE. SEAL PELTS ARE SEEN ON DECK

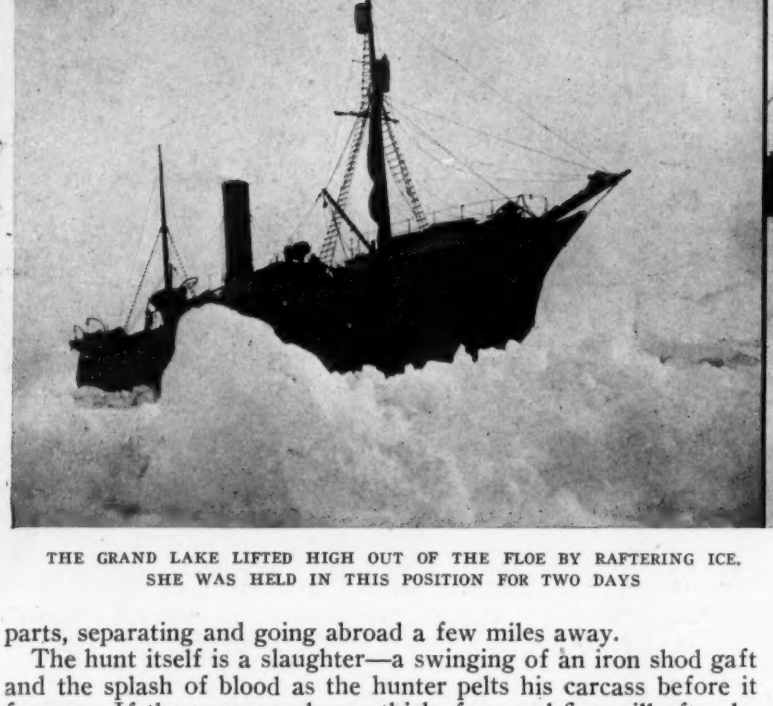
the floe. If the vessel is steaming in heavy ice, she is no more than holding her own; while if jammed she is actually losing ground. Shrewd captains, on finding heavy ice, have overcome the drift by anchoring in the ice of the outlying Funk Islands and letting the ice fields sweep by until such time as they think it wise to cut in and search for the seals. One year the captain of the Neptune did this while the rest of the fleet drifted south, jammed in the floe. On the 17th of March he had secured only twenty seals, but late that day he spied from the masthead, where he had kept continuous watch, the main body of seals drifting by in the distance, and at once worked his vessel through the ice till he reached them. His strategy proved successful. His was the only ship at hand, the seals were thick, and in three days' time the Neptune was loaded with a record catch of 42,000 seals.

These seals are not the fur seal of the Pacific Ocean, but the hair seal, which is valued only for its pelt or fat. The seals are of two kinds—hoods and harps. The former are great, fierce beasts, with tough bladder-like protection over the nose, which can be inflated at will. The male, when cornered, will fight to the last breath for the young, and in his rage is a mighty dogged adversary, almost invulnerable to the blow of a gaft. The harp, however, is much smaller, gentle and cowardly, and upon the least alarm the old abandon the young to their fate and scuttle away to safety in the blow hole. The hoods cling to the rugged outer ice, while the harps, in great herds of several hundred thousand, keep to the field ice in the inside of the floe, where the young are born. The steamers are on the lookout first for the young harps, for their fat makes the best oil and the hide the best leather. Vessels missing the young seals prolong their voyage hunting the old seals. This is a long, tedious task, as the old seals quickly take to water and must be shot. The young seals, or white-coats, are killed on the ice in great numbers by the crews of the steamers and make the great bulk of the Newfoundland catch of 250,000 a year.

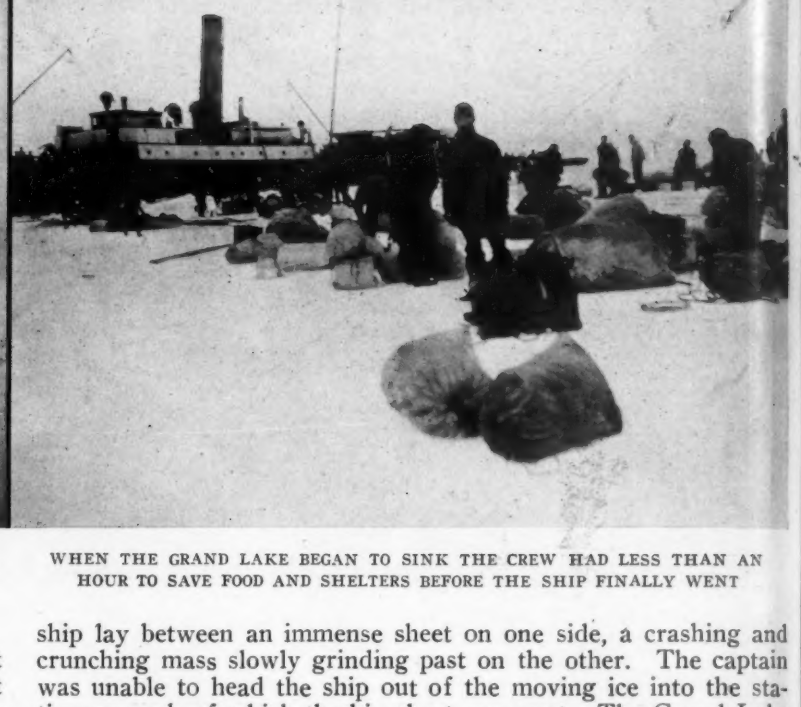
The hunters leave the ship long before dawn and frequently travel ten miles before coming up with the herd. They are on the ice until the ship picks them up at nightfall. The ice is usually a drifting, writhing mass, likely to go abroad into its parts, and the way of the hunters is from pan to pan, making short runs and jumping across the intervening water. At other times the separate pieces are packed tightly, with the joints of water lightly frozen over and the whole snow-covered. At such times the ice must be tested step by step; were a man to put his weight on the slob ice he would break through like a shot. In addition to these two perils, there are the danger from blizzards, of ice blindness and frost bite, and again, of the ice raftering in

HUNTERS HAULING THEIR CATCH TO THE SHIP. OFTEN THEY HAVE TO TRAVEL TEN MILES TO REACH THE SEALS

THE HUNTERS MAKE THEIR WAY OVER THE BROKEN ICE, LEAPING FROM PAN TO PAN



THE GRAND LAKE LIFTED HIGH OUT OF THE FLOE BY RAFTERING ICE. SHE WAS HELD IN THIS POSITION FOR TWO DAYS



WHEN THE GRAND LAKE BEGAN TO SINK THE CREW HAD LESS THAN AN HOUR TO SAVE FOOD AND SHELTERS BEFORE THE SHIP FINALLY WENT

parts, separating and going abroad a few miles away.

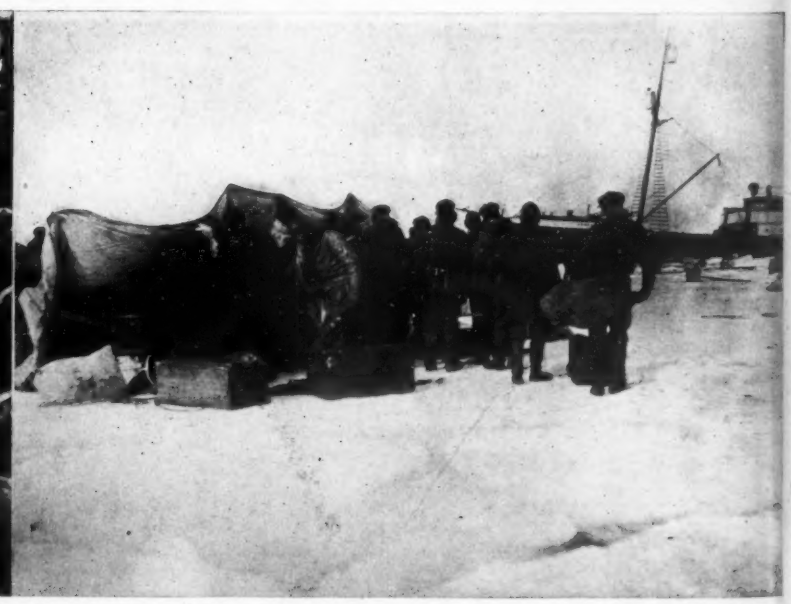
The hunt itself is a slaughter—a swinging of an iron shod gaft and the splash of blood as the hunter pelts his carcass before it freezes. If the young seals are thick, four and five will often be found in the lee of the pinnacles of ice. The hunters are within hailing distance of one another and haul their pelts to a central pile and mark it with the ship's flag. The line of hunters of one ship will sometimes stretch five and six miles. They work continuously, stopping only to eat their hard bread and fat pork at noon, then continuing until nightfall, when the ship picks them up, or, if it is in heavy ice, they travel over miles of intervening ice to board it. Each steamer throughout the day follows its hunters, picking up their pelts. This has to be done quickly, before they drift off in a snowstorm or are stolen by other ships after nightfall.

A few years ago I shipped to the icefields on board the sealer Grand Lake. At the end of a month's time the Grand Lake had 21,000 seals on board and 5,000 more on the ice to be picked up when the ship would start for St. John's with her catch. She was the first vessel to get her load. Suddenly, early on the morning of what was expected to be the last day's hunting, the ship was caught in a rafter. She lay in a trench between the standing and the drifting ice; one part of the floe, swept along by an opposing current, checked the course of the wind-driven mass. The ship lay between an immense sheet on one side, a crashing and crunching mass slowly grinding past on the other. The captain was unable to head the ship out of the moving ice into the stationary pack of which the big sheet was part. The Grand Lake was crushed, a great corner of ice forcing in the vessel's side amidships.

It was impossible to stop the mighty inflow of water, the boiler-room fires were quickly extinguished, and the engine room flooded. Then there was confusion everywhere: the crew rushed about saving boats and provisions; heavy pork barrels were hauled by hand from the holds; sails cut from aloft were dropped to deck. For a short space of time the ice held the ship afloat in its grip. Then a mighty heave and the ship's bow was lifted high out of the water and everything not frozen solid to the deck, from the anchors to the galley stoves, crashed into the deck houses, and nothing but a few seal pelts and broken oars lay on the surface of the troubled hole in the floe where the Grand Lake disappeared.

There was no sail anywhere to be descried—nothing but ice, an unkindly refuge for a shipwrecked crew. The men crowded in the lee of the punts. With oars as supports they constructed shelters of the saved sails. Miles of heavy ice, broken with channels of open water, separated the crew from the rest of the fleet. It was impossible to haul the boats over the ice; to abandon them and travel without shelter was quite out of the question. Escape was

THE MAD SCURRY TO GET FOOD AND SHELTER OUT ON THE ICE WHEN THE GRAND LAKE STARTED TO GO DOWN



SHELTERS WERE MADE OF BOATS AND SAILS TO PROTECT THE CREW FROM THE BITTER COLD

THE FINAL PLUNGE OF THE GRAND LAKE, CARRYING WITH HER A "TRIP" OF 21,000 SEALS AND LEAVING 203 MEN ON THE DRIFTING ICE FLOE

THIS PICTURE WAS TAKEN A MINUTE LATER. A FEW OARS FLOATING IN THE TROUBLED HOLE IN THE FLOE WAS ALL THAT REMAINED OF WHAT AN HOUR BEFORE WAS A STAUNCH SHIP

by endurance until such time as one of the fleet happened by. It was below zero and blowing a gale from the northeast. All hands crowded about the fires in the lee of the shelters, crunching hard bread all the while. A few unfortunate enough to fall in the water in the wild rush to reach the floe, stripped to the skin and wrung their clothes dry.

There was one castaway —a great, tough hulk of seasoned muscle and stout heart, who was in his second shipwreck for the year and the fourth in two years. He had a lust for the hunt, accumulated through thirty-seven years of seal hunting, that could not keep him ashore. It seems that the year before he shipped on the sealer Leopard, which was wrecked one day out from St. John's. Reaching St. John's again before the Greenland put to sea, he took the place of a sick man aboard of her. Afterwards the Greenland was lost in raftering ice, and her crew picked up and brought to port by another sealer. The next spring, undaunted, and with a plentiful supply of courage, the same man shipped on the sealer Panther. After the Panther was lost he boarded the Grand Lake. This hunter's experience is characteristic of the Newfoundland sealer's life in every respect; it is a proverb with them that they go when they can and leave getting back "to luck and good conduct."

A PATCH OF SEALS ON THE ICE

It chanced that the sealer Vanguard, searching anew the seals, loomed up on our horizon late in the evening and picked us up. The lookout at her masthead made the camp out as, he said, "much like a spot o' old seals on the ice."

Then followed two weeks of uncomfortable days and nights, for the vessel was overflowing with men, half of them without a place

(*Continued on page* 382)

THE SHIPWRECKED CREW OF THE GRAND LAKE CLIMBING ABOARD THE VANGUARD WITH THEIR DUNNAGE

THE ICE IS BLASTED AND PRIED AWAY FROM THE SHIP WHEN IT JAMS. THE CREW SOMETIMES WORK TWO DAYS TO FREE THE SHIP

Copyright

NARROW ARMS OF THE SEA STRETCHING INTO THE HEART OF THE MAINE WOODS

Some Possibilities of the Power Cruiser

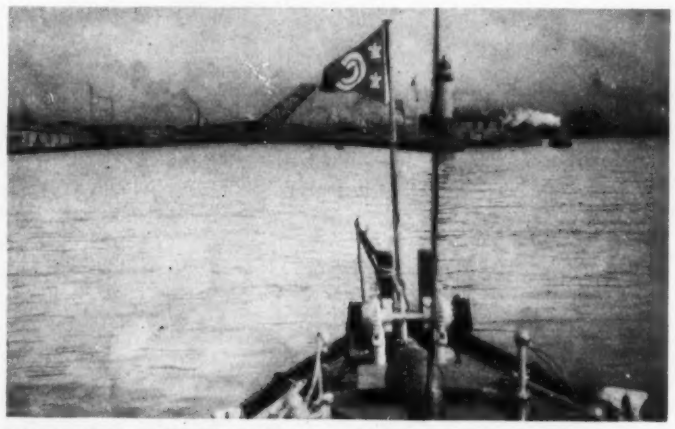
By H. S. LAWRENCE

This is the second of a series of articles showing the wonderful possibilities of the modern power cruiser, even with limited time at one's disposal. The average ten or twelve mile cruiser has practically as wide a range as the touring car, with more comfort, and affords a greater variety of experience.

IN the days of the sailing yacht, before the internal combustion power outfit came along, a boat's cruising radius was governed almost entirely by the time the owner had at his disposal, and on a limited vacation but very little was possible. Forty miles a day was then considered a good average, unless one wanted to sail day and night, and 25 or 30 miles was more often what was counted upon, taking into consideration the chances of head winds and the necessity in the prevailing light weather and calms of summer of making harbor before the wind died out at sunset, with an extra allowance of time as a safeguard against unfavorable weather conditions for the return trip. On a two weeks' vacation a man couldn't get much over one hundred miles from home, especially if he wanted to take it easy.

But with the coming of the 9- to 12-mile-an-hour power boat the cruising possibilities are almost unlimited, and the 100-mile radius of the old boat can be accomplished now in a single day's run between sunrise and sunset and not considered anything unusual.

Nor does one have to arrange his route in accordance with hotel accommodations, as is the case in touring. In automobiling, also, by far the largest part of the expense is for hotel accommodations, especially if the party is large. These accommodations can be roughly estimated at from three to five times the normal expense for the same number at home, while on a cruise hotel bills need play no part in the expenses, even for a month's trip. In the smaller-sized boats no paid hand need be carried, while in the larger sizes mentioned one, or at the most two, are all that will be found necessary, and neither of these need be a professional skipper if the owner wants to get the most fun out of his boat, which can only be had by navigating her himself.



THE CHARM OF ENTERING STRANGE PORTS AT THE END OF THE RUN

Though the ideal-sized boat for extended cruising is from 40 to 60 feet in length, boats as small as 35 or even 30 feet have almost as wide a cruising radius, if properly designed and handled, though on a long cruise they are apt to be a little crowded and to prove more of a strain on a man's democratic spirit than the average person desires for any length of time. A congenial party always adds to the pleasure of a cruise, but where they have to eat, sleep, cook and wash in a 7 by 8 foot compartment, even the most

cheerful disposition will lose some of its buoyancy.

In a boat from 40 feet up, however, the same privacy and comfort can be had for a party of four or five as is to be found in the average summer cottage, with a cruising range of 80 to 100 miles a day, depending on the speed of the boat.

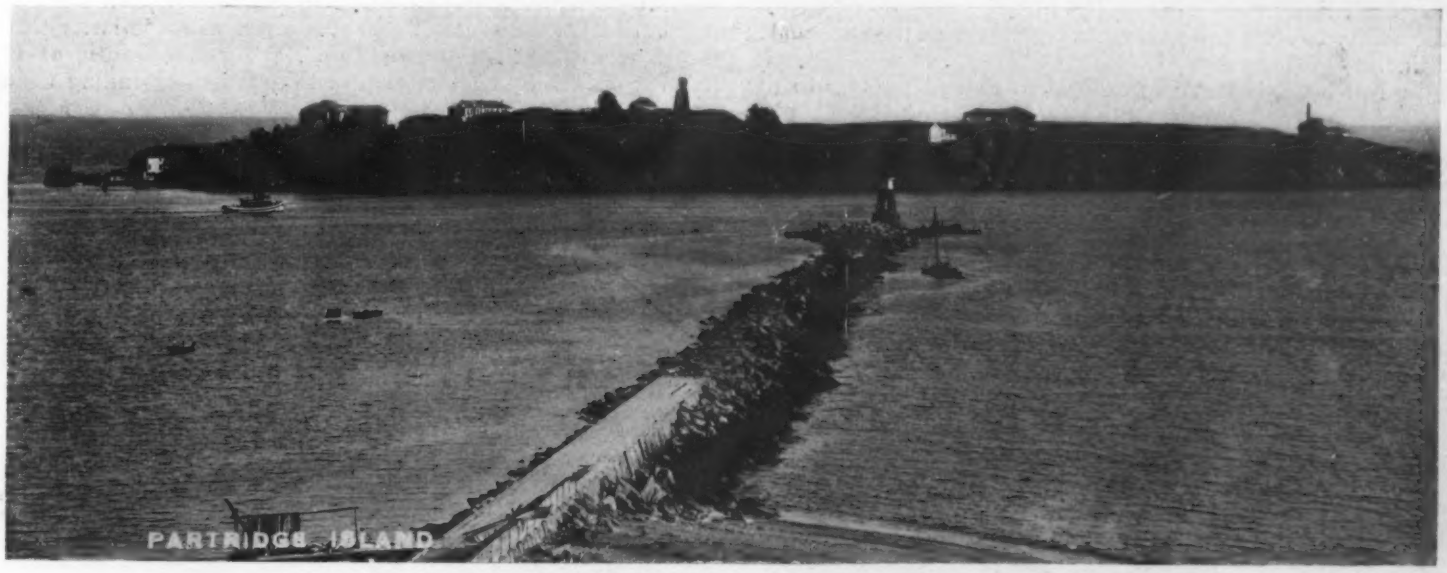
In the summer one naturally turns northward for his cruising. While the Maine coast, with all its beauties and its wonderful air, is probably well known to the New England boat owner, it is seldom visited by yachtsmen south of Cape Cod, though it is of easy accomplishment in a ten days' to two weeks' vacation. The trip around the cape has usually been the bugaboo of the average power boat man, yet it is an easy and simple trip, with the longest exposed run only some 65 nautical miles (from Nantucket to Provincetown), which can be made on almost any summer day in seven or eight hours. With the opening of the Cape Cod Canal this year, the trip around the cape will not only be cut out, but it will bring Boston or Marblehead within an easy twenty-four hours' running of New York and the Hudson River, the distance being reduced to about 225 miles.

FISHING SHACKS PERCHED ON THE RUGGED CLIFFS OF THE SOUTHERN NEWFOUNDLAND COAST. THOUGH A BOLD AND PICTURESQUE SHORE THERE ARE MANY AVAILABLE HARBORS

From there another long day's run, with many harbors at hand if necessary, will take one to Casco Bay, from which point extends a coast line of nearly 200 miles that is unequaled anywhere in the world. Rocky islands covered with fir trees, long, deep bays and arms of the sea reaching almost into the heart of the Maine woods, with bold shores protected by outlying islands and necks of land, exert a charm that is hard to break, and once known, the call of the Maine coast is so strong that it is not to be denied.

The farther east we get the wilder and higher becomes the coast, with Mt. Desert in the center rising 1,600 feet out of the sea. The problems of navigation are simple. The coast is well buoyed, every ledge and rock being marked, while there are snug little rock-bound harbors every few miles. The water is deep, however, and one frequently anchors in ten or twelve fathoms, so that plenty of cable is a necessity.

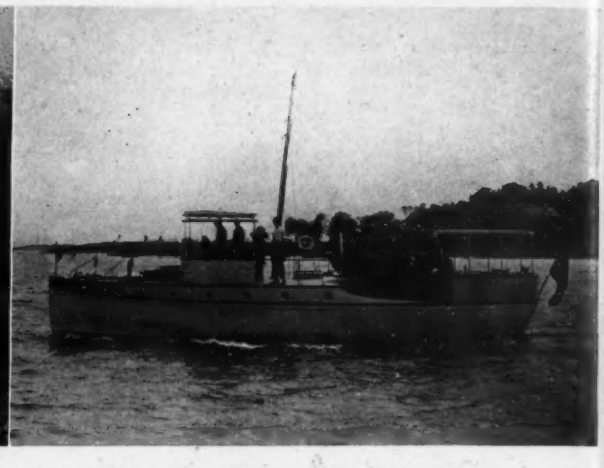
Stretching the trip out to New Brunswick and to the Bay of Fundy, past beautiful Campobello Island and across to the purple cliffs of Grand Manan, is easy, and the 45-mile run across the bay to Nova Scotia is something that can be done in a few hours with a power cruiser. The only drawback of the Nova Scotia coast is that the southern end is fog-bound, and a southeast or southwest wind usually brings in the mist from the fog factory off Cape Sable. But even this should not prove a deterrent, as the southwest end of Nova Scotia is the only real bad spot, and even here the Government reports show that in



A SNUG ANCHORAGE BACK OF PARTRIDGE ISLAND, WHERE THE GREAT FUNDY TIDES SWEEP BY

GREY GOOSE, ONLY A 35-FOOTER YET AN IDEAL CRUISER, WITH A SPEED OF 9½ MILES

TIED UP TO THE BANK OF ONE OF THE MANY RIVERS ON THE UPPER "EASTERN SHORE"



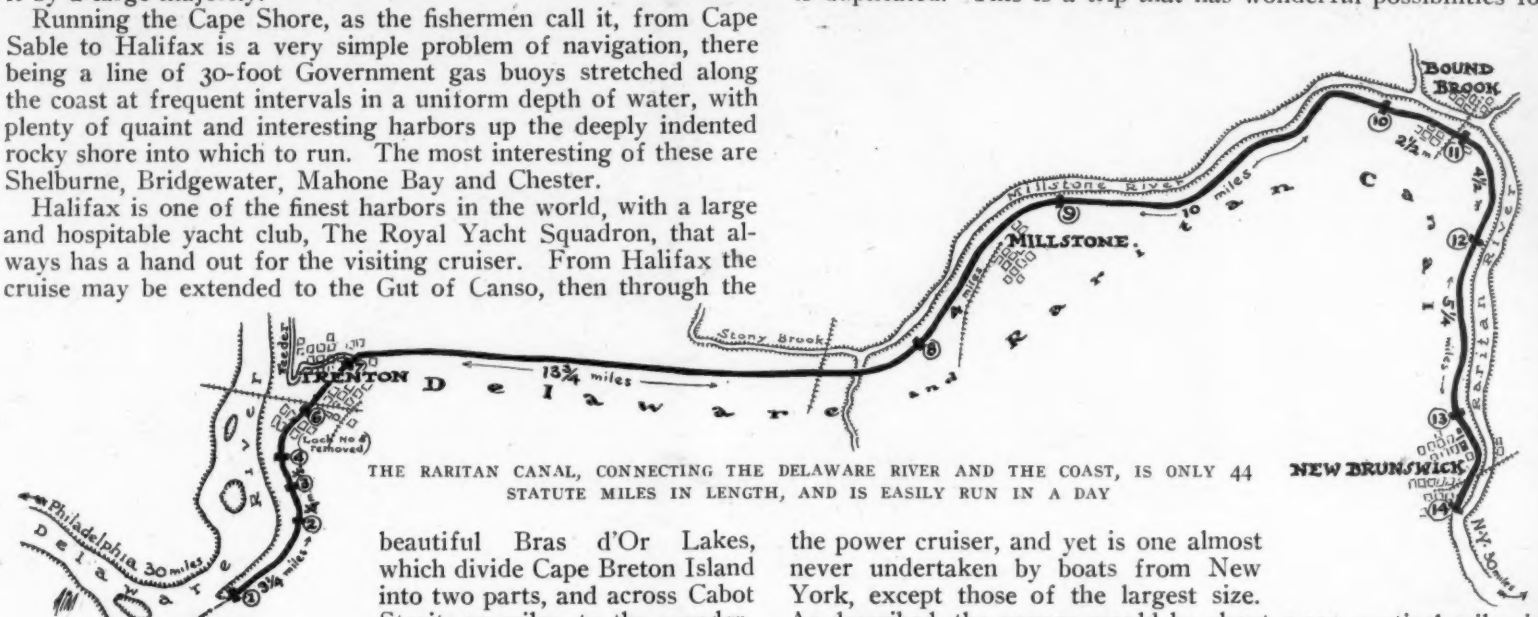
HALF MOON, A 45-FOOTER, WITH THE MAXIMUM OF COMFORT AND ACCOMMODATIONS FOR A LONG CRUISE

July and August considerably less than half of the days are foggy, while as you go eastward towards Halifax the fine weather has it by a large majority.

Running the Cape Shore, as the fishermen call it, from Cape Sable to Halifax is a very simple problem of navigation, there being a line of 30-foot Government gas buoys stretched along the coast at frequent intervals in a unitorm depth of water, with plenty of quaint and interesting harbors up the deeply indented rocky shore into which to run. The most interesting of these are Shelburne, Bridgewater, Mahone Bay and Chester.

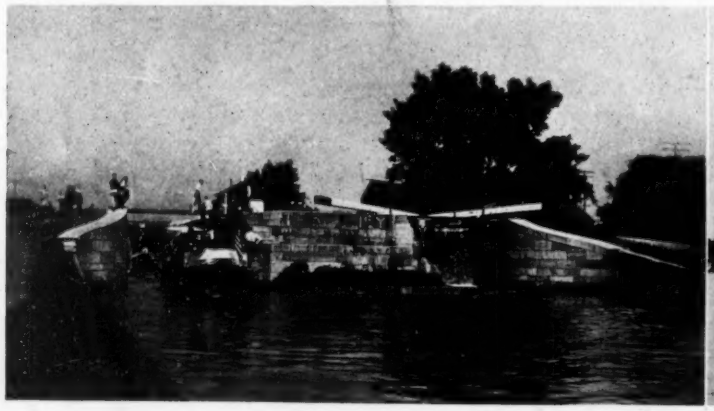
Halifax is one of the finest harbors in the world, with a large and hospitable yacht club, The Royal Yacht Squadron, that always has a hand out for the visiting cruiser. From Halifax the cruise may be extended to the Gut of Canso, then through the beautiful Bras d'Or Lakes, which divide Cape Breton Island into two parts, and across Cabot Strait, 90 miles, to the wonderfully picturesque coast of southern Newfoundland. The whole trip can be made without the necessity of a single night run, there being harbors within easy distance at all times, and without any higher navigation required than the ability to steer compass courses, use the chart, and handle a lead line.

On the run back, if it is not desired to extend the trip to the eastern St. Lawrence River, the northern coast of Cape Breton can be skirted, and different harbors made each night than those called at on the trip out, so that practically no part of the trip is duplicated. This is a trip that has wonderful possibilities for the power cruiser, and yet is one almost never undertaken by boats from New York, except those of the largest size. As described, the voyage would be about 2,200 nautical miles in length and could be made in a month or five weeks with no trouble.

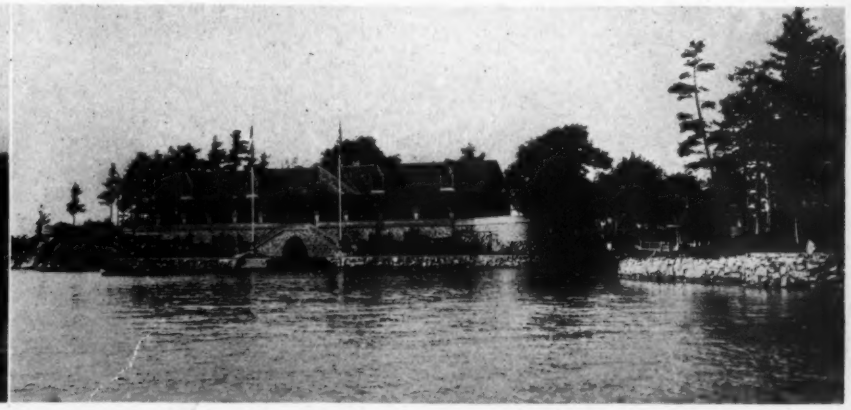


THE RARITAN CANAL, CONNECTING THE DELAWARE RIVER AND THE COAST, IS ONLY 44 STATUTE MILES IN LENGTH, AND IS EASILY RUN IN A DAY

But one does not have to go north to get good cruising in the summer time. Chesapeake Bay, and especially the eastern shore of Maryland, is a trip in which one can use up from one week to a month with the greatest ease, and even with the latter time not begin to exhaust the possibilities. The eastern shore of Maryland is broken by a succession of tidal rivers extending from five to fifteen miles into the country, with long, shallow sounds pro-



CANALING HAS A CHARM THAT IS ALL ITS OWN



WELL APPOINTED YACHT CLUBS ADD TO THE PLEASURE OF THE CRUISE

MOUNT DESERT, RISING 1,600 FEET, AS SEEN ACROSS BLUE HILL BAY

tected by outlying islands, and this shore has a charm that is equally as strong to those who have felt its lure as is that of the Maine or Nova Scotia coasts.

On the lower part of the "eastern shore" the land is low and flat, yet the beauty of the shores and the banks of the tidal rivers more than repays for the lack of high land. Tangier and Pocomoke Sounds, and the Choptank, Wye and Chester rivers alone could stand a month of interesting exploration. While the water is shallow, the channels are well marked and carry from 8 to 12 feet of water, even at low tide, though out of the channels from 5 to 8 feet is probably the average, with, of course, many places where the bottom is much nearer the surface. At the upper end of the bay the land is higher, is well wooded, and many beautiful homes and old estates slope down to the water's edge.

From New York lower bay to the Raritan Canal is only some 25 or 30 miles. The canal itself is only 38 nautical miles in length, with thirteen locks, and can easily be run in a day, while from Bordentown, where the canal comes out on the Delaware, it is only sixty miles down the beautiful river to Delaware City, where one finds the 13-mile canal into the Chesapeake. Two days from New York would put one at the head waters of the Chesapeake Bay with all the possibilities that that wonderful body of water offers.

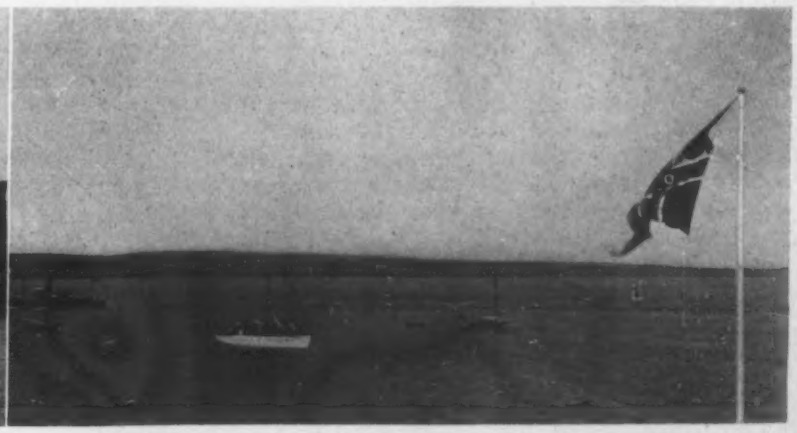
WHERE THE LAZY SCHOONERS LOAD MAINE GRANITE

WHEN DECKS ARE CLEANED UP AT THE END OF THE RUN

In spite of the general belief, the eastern shore of the Chesapeake is not hot in summer, and the average temperature would correspond very nearly with that of Long Island Sound. The prevailing winds being southerly and south-westerly, blow across the bay and up the rivers with a refreshing coolness.

In all of the cruises mentioned in this article the problems of navigation are such that no boat owner need be frightened at them by reason of lack of experience in cruising outside of known waters. If he can read a chart he will have no trouble, as the aids to navigation are many, and not only are the coasts well buoyed and lighted, but full sailing directions to all harbors will be found in the Coast Pilot issued by the U. S. Government, while the Chesapeake Bay cruise is fully described in a book on the Inside Route to Florida, published by the Hydrographic Office. With a little practice confidence will come, and when this has been acquired the "skipper" will find there is no pleasure in boating as keen as piloting his ship in strange waters.

THE ROYAL NOVA SCOTIA YACHT SQUADRON, HALIFAX, ALWAYS HAS A WELCOME FOR THE VISITING CRUISER



HALIFAX IS ONE OF THE FINEST HARBORS IN THE WORLD

A Deep-Water Cruise in a 50-Tonner

Being the Account of a 12,000-Mile Traverse in a 54-Foot Ketch

By A. E. DINGLE

[Three yachtsmen, Nason, Morley and the "Skipper," have chartered the ketch rigged yacht Gladys, 54 feet long on the water, for a cruise across to the West Indies and Caribbean. They, with one paid hand and a boy, "Skimps," for cook, make up the crew. The first port of call is the Azores, which they make nine days out from Dartmouth, England. They have just dropped anchor at Horta at the close of the last chapter.]

CHAPTER II

IT is always advisable in the Azores to hire one of the bum-boatmen, in self-defense. For, though one may prefer to do one's business alone, and in person, be quite sure that a swarm of the pests will hang around the ship, vociferously crying their wares, and will even follow the yacht's boat to the shore and its passengers to the town, until one's life becomes burdensome. Wherefore, picking out the least piratical, in appearance at least, of the horde floating around us, as we dropped anchor in Horta after our run from Dartmouth, we appointed him our bouncer-in-chief. He was made to understand that we would do no business with any of his mates, and if he wished to be paid for his own services with coin, and not with the end of the main-sheet, he had better chase the rest of the horde away from our anchorage.

While Gomez was delivering this ultimatum in Choctaw, Chinook, or Volapuk to the fleet around us, all hands turned to and stowed sails, put covers on, and busied themselves generally. There were beds, bedding, cabin cushions, and other gear to air on deck while waiting for the port officer and doctor to pay their official visit and give us pratique. Much ceremony was speedily obviated by the production of a bottle of whiskey, our papers were pronounced O. K., and we were free to go ashore. Leaving Jack and Skimps in charge, and Gomez at the gangway, Nason, Dick and the skipper got into the gasolene dinghy and headed for the landing place of the town. Our hired pirate had given us the addresses of desirable tradesmen with whom to place our orders, and with whom we had no doubt he stood in at our cutting up.

The first thing to be done was to change some money into the currency of the Islands. Before many dollars were changed all hands experienced a little of that millionaire feeling, for a silver piece of the size of a half-dollar was denominated five hundred reis. We each had several thousand reis in very short order, and carried our heads off our chests in consequence.

The launch was left in charge of a gorgeously-apparelled policeman. We ensured his loyalty by refusing to pay him one cent until we returned and found things all square. Then, we told him, we would tip him a hatful of change which would make his pay look like wood chips. Furthermore, he was impressed with the information that the launch would explode upon the least provocation, so he had better keep himself, and everybody else, out of the boat. We would make the tradesmen's boys deliver our goods right down to him, so that he could see to their safety.

We found the town of Horta quite a passable little community of about 7,000 people, whose chief occupation seemed to consist in looking all day for bed time. It was evident, though, that business of a kind was done, for everybody looked well fed and contented. Stores and offices bore signs of prosperity, and the market contained a goodly assortment of the products of the islands.

Our purchases included bananas, yams, cheese made from goat-milk—and butter; potatoes, and, of course, some of the delicious St. Michael oranges and "pines," with half a dozen gallons of the native wine in good stone jars, wicker-bound. These were sent down to the wharf while we went in search of ice and water. Incidentally, we fitted ourselves out with cotton suits and big straw hats for the tropics. The water boat had gone off to Pico to supply a tramp steamer, but we were assured she would call on us in the evening and bring ice out with her. With that we had to rest content, though we needed ice badly, as we could not take in any fresh meat until our ice-box was filled.

Returning to the launch we found all our purchases ranged alongside, and Cerberus, in the shape of the cop, standing guard over all, to the manifest admiration of the crowd of idlers who had gathered to see the boat that exploded start off. The stores taxed the capacity of the launch to the limit, and when Nason, the last man aboard, put his hundred and ninety pounds into the balance there was mighty little left 'twixt wind and water. Paying our faithful guard with silver coin lightened us considerably, and giving the "kicker" a turn over, we started off to the yacht, hoping to encounter no swell on the way. If we had we'd have got a swim for certain.

While yet a good half-mile from the yacht we could see that there was something doing aboard that did not seem right. We took a big chance and pushed our deeply-laden craft to top speed, trusting to luck to keep afloat until we got alongside. We could now see a solitary boat, with a solitary occupant, tied at the gangway; while half a dozen other boats, manned by gesticulating Portugoosers, formed a circle round the Gladys. And lording it over all was Skimps, pacing to and fro on deck with a rifle over his shoulder, every little while stopping at the gangway to threaten with his gun the poor devil in the boat at the foot of the ladder.

As we ran alongside, in answer to our hail old Jack bawled out: "That damn pirate, Gomez, has been making too free with the ship's gear, so we put him over the side and made him stop there till you came back. You ought to have him put in the jug, for we copped him passing the brass binnacle-top into one of his mates' boats." Apparently Skimps had nobly seconded Bayne's efforts to preserve our property, especially when he was trusted with a gun and told off for guard duty. So we lost nothing; rather, we gained valuable experience that served us well in our visits to other out-of-the-way islands. Gomez and his fellow boatmen around us were summarily dismissed without getting a cent, or cent's worth, out of us for a whole day wasted alongside. And Skimps, in the exuberance of his ardent spirit, could not refrain from pumping half a dozen slugs from his rifle to hasten their departure—more than one, be it whispered, went pretty close to the mark, judging by the acceleration in pace of the rowers.

This affair put a damper on any desire we had to further explore the beauties of Horta. Jack and Skimps didn't seem overanxious to take a stretch ashore among "them blasted sneak thieves," to use Bayne's words. So we turned to and got our stores stowed away off the deck, and decided that, just as soon as the water-boat showed up, we would get our anchor and try for Madeira.

No water-boat had appeared at eleven o'clock P. M., so the skipper arranged to stand anchor watch until one o'clock, when the others would take their turns if necessary. The crowd were soon in their bunks, leaving Skipper to search the darkness all around for signs of the missing waterman. Away off, at midnight, the throb of engines was heard, and presently the lights of a steamboat of some kind glimmered over the water, coming from the Pico side and heading for the town. As she passed astern of the yacht the night glass revealed the anxiously-awaited water-boat. Hailing her and getting a reply in intelligible English, the skipper sung out that we were only waiting for water and ice to get away, and if he could bring the water right away we would do without the ice if necessary, and pay him double for the water and his trouble.

That double-pay offer was a telling shot. The waterman swung alongside in a brace of shakes, and the Portugee in command said he had plenty of water for us right there, and could get ice if we only waited while he ran into his dock for it. But we had no fresh meat to spoil, nor did we intend to wait to get any in this nest of pirates. A water-boat alongside was worth a whole fleet at the ice dock, and he was told to couple up his hose right away. Our little ship's company turned out cheerfully to take in

the two hundred gallons needed to fill the tanks. While the pump was under way, with a hand standing by to watch out for short measure, the launch was hoisted and stowed, and the swinging-boom made fast. The gangway only needed turning inboard, and the sail-covers had been left off; so by the time the water was aboard and the water-boat cast off, we were ready to heave short the cable and get sail on the yacht.

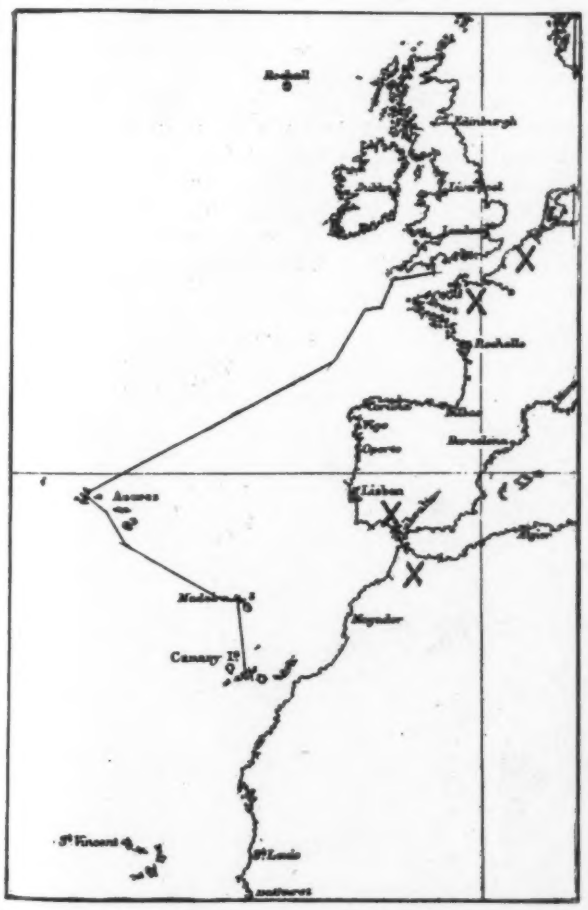
It was now past two o'clock and a brisk breeze seemed steady at nearly due east; our course to Madeira was S. E. by S.—pointing high to offset leeway—and once clear of Pico to windward, nothing lay in our way nearer than St. Mary's rocky islets, 170 miles off. At once it was decided that our best thing to do was to get our anchor and take advantage of the wind, starting sea watches right away.

Under four lowers, Gladys gathered way, close-hauled, and we speedily settled down to put good salt water between us and Fayal. Nobody lost any sleep on that account apparently, when decks were cleared, ropes coiled down, and the watch off duty sent below.

By eight bells, breakfast time, the yacht was buzzing along with gafftops'l and jib-tops'l set, making a good seven knots. This was splendid, considering she was lying a course within five points of the wind. Fayal was now but an unpleasant memory, though Pico was yet in sight astern. Our expected treat of fresh meat was missing at breakfast. We consoled ourselves fairly well with smoked bacon and canned sausages, topped off with delicious fresh fruit; and we looked forward to laying in a store of provisions at Funchal, where strangers might not be looked upon so much in the light of prey for pirates.

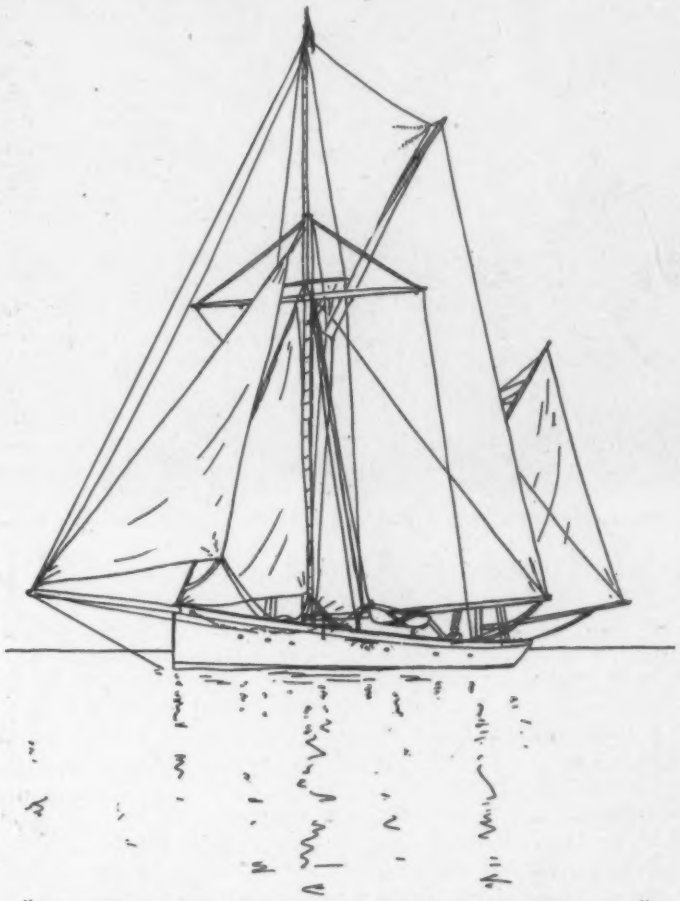
Off to Madeira

The problems in navigation involved on this leg of the cruise did not call for much of higher mathematics, and unless the wind headed us, which seemed unlikely, we could lay our course right into Funchal on the one board. St. Mary's rocky islets lay right in our track, and we might expect to sight them before nightfall.



TRACK CHART SHOWING THE COURSE OF GLADYS FROM DARTMOUTH TO THE CANARIES

But before the islets came into sight, we came unpleasantly near losing a valuable member of our little crew. Nason, the burly and genial mate, had dug up some rusty old grains from somewhere, and had been very busy all the forenoon sandpapering them clean. When he had the iron to his liking, and had bent on a long heaving line, he took up a position on the weather side of the bowsprit, watching for a chance to harpoon a porpoise which kept pace with the yacht just in front of the stem.



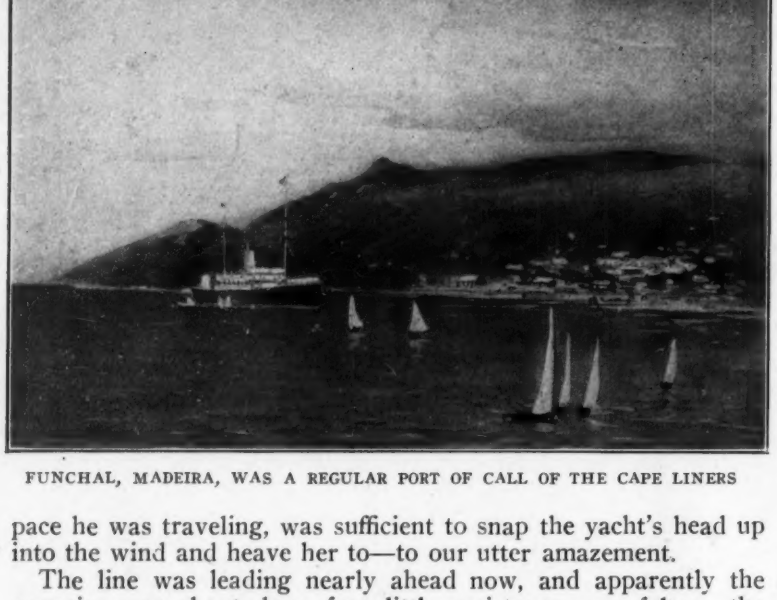
"THE BREEZE FAILED US FOR THE FIRST TIME ON THE CRUISE"

Old Jack was steering, Morley was below at the chronometer, and the skipper was coaxing the sun's limb down to the sea-line for an A. M. sight for longitude. Nobody was paying much attention to events going on for'ard.

A splash and a shout from Nason, immediately followed by an awful volley of dark-blue deep-water blessings (it has been mentioned that Nason is an old Navy man), brought the helmsman to attention. The skipper had just called "Stop" to Morley and was reading off his sextant, when the yacht flew up into the wind, her head sails went aback, and she hove herself to.

Then we missed Nason. Totally invisible, he was yet quite audible, which in part reassured us. Calling Skimps to tend the head-sheets, we ran forward and speedily discovered the cause of the commotion. Our worthy mate was betwixt wind and water and in a desperate fix. One foot was hooked over the bobstay at the shackle, the other dangled loose in the water, and with both hands he gripped for dear life the bowsprit shroud; he was out of reach of either bowsprit, whisker, or rail.

Passing the bight of a strong line around our bulky friend we soon had him aboard. Not until he was safe, with his two feet planted solidly on the deck, did we look into the cause of the yacht luffing up, which we could easily see was in some way connected with the near-loss of our mate. It seems that our friend, the porpoise, considerately came in range of the harpoon, and Nason made a terrific lunge and drove home the iron. The fish, a big one, immediately started off to windward at a hot pace until he felt the line tauten, when, like a flash, he doubled astern and still to windward. We were sailing at about seven knots, and the "porp" was probably making nearer seventy for the moment, so a turn of the rope round Nason's leg yanked him off the rail, and would certainly have drowned him had he not managed to shake clear of the coil as he tumbled and grab the shroud. As it was, the line was fast to the end of the windlass, so the "porp" suddenly found himself brought up all standing. The jerk, at the



FUNCHAL, MADEIRA, WAS A REGULAR PORT OF CALL OF THE CAPE LINERS

pace he was traveling, was sufficient to snap the yacht's head up into the wind and heave her to—to our utter amazement.

The line was leading nearly ahead now, and apparently the porpoise was about done for; little resistance was felt as the line was hauled in. The tremendous jerk which he got when brought up by the line would ordinarily have pulled the iron. In this case the grains had sunk plumb through his back, on either side of the spine, and instead of tearing out and freeing the fish, they had simply snapped the backbone and killed him.

We got the catch on deck and the yacht on her course again just about thirty minutes after the excitement started. But Dick had lost his chronometer reading in the scurry to get on deck, so our sights were of no use to us. The sun had been high before the haze cleared off the horizon that morning, and now the altitude was rather too great for a good hour angle. However, that mattered little, as P. M. sights were just as good, or, failing that, we could make our dead reckoning reasonably sure on such a short run. We were more closely concerned with the result of Skimp's effort to cook a joint of "porpoise beef" for dinner, which Nason assured us would prove the best meat we had ever eaten. If not actually the best, it was certainly more than fairly good, and the circumstances attending its capture undoubtedly made it the most uncommon joint any of the party could recall. It was an agreeable change from the salt and preserved bill of fare of the cabin. It would not be amiss, say, once a week, but more frequently than that would be apt to become too often.

As the day wore on we sighted many fishermen, mostly small weatherly schooners, either with nets down or making a passage back to their island port. One vessel was holding a course which would bring her across our bows, and as she was apparently "hooked up for home," we decided to speak her and try to purchase some of her catch. As soon as she saw we wished to speak her she put her helm a-lee and ran up into the wind, allowing us to range almost alongside. Her punt, or dory, was dropped overboard in real fisherman style, shoving off from the side and reaching us without wetting an oar.

Fish of every conceivable variety were there for our choice. Jack and Skimps secured a bushel of fine finny beauties, all alive, ranging from small fellows, like smelts, up to a good big bonito, and the only payment asked was an old coat or old cloth pants. We had both. The skipper of the schooner spoke fairly good English, and told us that unless we wished to call in at the islands we had better give St. Mary's a good berth, as some of the rocky patches lay far out from the group and were not all marked on the chart.

As the only place of any size on St. Mary's, Villa da Porto, was hardly likely to hold anything we required, and since we certainly did not wish to finish the cruise by motor launch, leaving Gladys on a rock, we thanked the good-natured skipper both for the fish and the hint and swung off on our course again. With a good two points more southing in the compass, eased sheets gave the ship more speed, so we probably lost nothing by going a little farther round.

The breeze, which had held steady at east since getting our anchor, came more northerly about six o'clock in the evening and settled at N. N. E., with a trifle more weight to it by eight bells. This gave us a fair wind and Gladys just gave a saucy shake as if she appreciated the change, and settled down to a cracking good clip that made the Cherub Log on the taffrail hum again. A sharp lookout was kept through the night for outlying rocky patches, but our course carried us plenty far enough to the south'ard, and as soon as the dawn glowed in the eastern sky we hauled up with our bowsprit pointed fair at Funchal. By noon the thin line on the chart representing our track had reached nearly half way on the leg, and all hands were busily employed with preparations for a stay of some days in Madeira—if the islanders did not make our stay too uncomfortable.

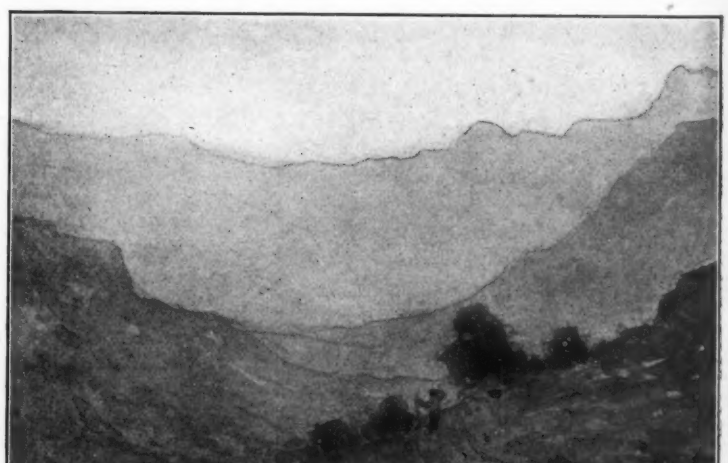
The ice locker was cleaned out and stock taken of our stores. Bayne went to work and built a poultry coop for'ard in readiness for the cacklers we intended to ship if they could be got in the island. All through the daylight hours sail was piled on from deck to dog-vane, and with big mizzen-stays'l, jib-tops'l, and the big squares'l all pulling like sojers, at times our little hooker was making better than twelve knots by the log. At nightfall on the third day out from Fayal, Dick mounted to the cross-trees with the glass, and soon sung out that he could just make out the land on the horizon. Sail was shortened and we held our course under easy canvas, calculating upon coming up with the island by daylight. Soon after midnight we made the light, and, from then on, Skimps was the only sleeper. All hands were anxious to be on deck when the sun rose, to enjoy their first glimpse of lovely Madeira. And when it appeared about six o'clock, it first revealed the island shrouded in mist to the water's edge, then gradually dispelled the lower strata of vapor until only the mountain tops were hidden, and finally touched up with vivid and ever strengthening light all the varied tones of green and white, golden-yellow and purple, and merged all into the deep blue of the ocean below and the deepening gray of the cloud-capped peaks above.

All hands, including Skimps, who was now on deck, agreed that Madeira certainly looked sufficiently inviting in which to spend at least a few days. So Gladys, clothed to the trucks again, was put into her stride to make the anchorage. A bare hour's sailing brought us up to the front of the town, and the anchor was let go in 18 fathoms about a quarter of a mile off the mole.

While waiting for the port officers to come aboard the ship's company went to breakfast with vast appetites.

Funchal, Madeira

As soon as all the formalities had been observed and we were free to land, our first care was to replenish our pantry stores. Jack and Skimps had not set foot off the yacht since leaving Dart-



THE GRAND CURRAL, MADEIRA

mouth, so the skipper took them along with him in the launch to forage for stores, leaving Dick and Nason in charge.

Funchal being a regular port of call for the Cape liners and West African steamers, we were able to procure almost everything in the way of sea stores at reasonable prices. Our Portuguese money from Horta was good here, and after changing some more cash and giving the paid hands each a pocketful of milreis —and a lesson in values—those two worthies were started off to see the sights. The skipper knew full well that any fun to be got would come more natural to them by themselves than in his company.

They were impressed, however, with the fact that the boat would come in for them at four o'clock, and they would be expected to show up at that time. The skipper found his way to the market, where he ordered a full list of stores to be delivered later, and purchased as many of our immediate necessities as would load up the launch.

The forenoon was used up in this errand, and by the time the skipper reached the Gladys and helped Nason and Morley stow the provisions, there remained just time enough for the three of us to bathe and adorn ourselves in our shore-going regalia before we were due to send for the liberty men.

We proposed to dine ashore this evening. Jack and Skimps were quite competent to handle the ice and fresh meat we had ordered, with the help of the ice-boat men, when it arrived, so we decided to wait until we could see our crew on the dock, and then all go ashore in the launch and let them take her back to the yacht.

Promptly at four o'clock Jack's whistle shrilled out over the water. In ten minutes we were on the dock and started our hardy tars off to the anchorage. Before shoving off, Skimps proudly exhibited several gorgeous shell boxes, "fer them gals down hum"; but Jack was very quiet. It was not until the next day that we learned the reason from Skimps. They had paid a visit to the Casino, and while his chefship had won a hatful of reis, old Jack had been "skun clean out!"

The evening before us we intended should compensate us for our Fayal disappointment, and first in line was dinner, which had been arranged for during the excursion of the morning. A carriage drive of thirty minutes out on the lovely Ruivo road in the short twilight gave us a cooling off and brought us to the quaint, old-world hostelry, nestling like a block of white coral among the gorgeous foliage which clothes the whole island.

On a broad, matting-covered veranda, cane-screened, seated in long, low, cane-seated lounge chairs—the arms of which were fitted with receptacles for tall tumblers, said tumblers giving forth the musical tinkle of ice floating in liquid joy—we three shipmates stretched our legs and imbibed our joy-juice in silent appreciation, while from the dim interior was wafted the fragrance of dinner—a dinner such as we had only dreamed about for weeks.

That meal established forever, in our minds at least, the vast difference existing between *dining* and *feeding*. Nason expressed the opinion that "porpoise beef and canned beans are mighty good things to *feed* on, but a purse made out of a pig's ear isn't silk, is it?" What Morley's opinion may have been did not immediately transpire. Dick's attention was fully taken up in a search for succulent forced peppers in the mysterious depths of a wonderful Hot-Pot, placed on the table as a kind of set piece.

Two exquisite hours were spent round the table in that cool, dimly lighted room. Unfortunately, all good things must have an end, and as we wanted to look in on the popular resorts of the town, our four-wheeled dinghy was hailed and we embarked on the ride back to Funchal.

Winding down the road we had a fine view of the roadstead with its numerous lights. A newly arrived mail steamer cast a blaze of brilliance over the water; a little nearer inshore twinkled the riding-light of the

PEAK OF TENERIFFE, WITH THE ALTITUDE OF 12,000 FEET, AS SEEN FROM ICOD

Gladys, and scores of other lights dotted the bay like fireflies.

Arriving in town the numerous equipages drawn up at hotels and the theater gave evidence of visitors from the liner in the bay, and when our Jehu brought up in front of the fashionable Casino and discharged us into its hall, we found the tables crowded with a merry party of South Africans tempting their luck. We were nothing loath to join in for a turn or two of the wheel. An hour or two sped by as on greased skates at the ancient game of "Win one—lose two." None of our party belonging to the "nut" class in gambling, we quit the tables each a few milreis to the good, and sauntered down to the water front, taking in the city by brilliant moonlight on the way. Our evening had been an unqualified pleasure, and while listening to the muffled explosions of the launch, rapidly approaching the landing in answer to our hail, we agreed to a man that Horta in Fayal could be blown to Helvetia if only Funchal, Madeira, were left on the map.

Bayne had nearly recovered from his grouch when he ran alongside the gangway steps. One of the Murias we gave him put him quite right before we hooked the tackles to the launch to hoist her up for the night. He reported the ice and stores safely aboard and stowed away; and a sound, as of a locksmith filing a key, issuing from the fo'cs'le scuttle gave ample assurance of the well-being of the cook. It was now near midnight, and Bayne volunteered to stand anchor-watch until four o'clock, when he would call Skimps; so with the whole night in which to dream of our rambles, we left some more "smokes" with Jack and turned in, wholly satisfied with ourselves and the progress of the cruise.

A week quickly slipped by in this island paradise, a week of which we have only the pleasantest memories. It would have required no very urgent persuasion to induce at least two of our party to desert the ship and remain in Madeira, to such effect had the spell of the beauty-clad mountain slopes and peaks fallen around us.

Our anchorage itself was a gem of the picturesque, with the innumerable bum-boats and country craft. The diving boys, too, were interesting. They seemed positively amphibious, scarcely coming out of the water for five minutes during the whole day, as long as there was anyone to throw a coin overboard for them to scramble for. The old fortress on the Loo Rock, just across from our berth, seemed to invite a probe into its history and associations. But our time would not allow of every excursion we would have liked to make. There were other isles calling to us, so on the evening of the seventh day after bringing to in lovely Madeira, we again manned the windlass and sailed out of the Bay of Pleasant Memories, bound for that other gem of the East Atlantic, Teneriffe, in the Canaries.

BULLOCK CARRIAGE, MADEIRA

Under Way for the Canaries

A light wind was blowing from the N. N. E., as we cleared the harbor, and, getting an offing, the yacht was put on her course, south 6 degrees east, from the famous Peak. The distance is only about 250 miles, but the breeze failed us for the first time on the cruise, and we took three days to make it.

When the light air first died out we tried to coax motion out of the yacht by enthusiastically jumping to sheets at every stray breath. We were urged on in this by the example of a squat old brig, with sails like a patchwork quilt, becalmed a mile to windward of us. Her scanty crew were kept on the jump all the time, yards being hauled every two or three minutes. We didn't propose to allow an old tub like that to sneak ahead of us if we could help it, and for an hour or so we kept pace with her, trimming sheets every time she manned braces. But we soon found that our progress was far more apparent than real, and when we had headed all around the compass and saw a bottle which the cook had thrown overboard an hour before still keeping ahead of us, we left the brig to her sail drill and stowed our canvas. Only the squaresail was kept aloft, and we let her drift under that in her own sweet way.

When eventually the breeze stole over the sea, after four hours of oily calm, the brig was a good three miles astern for all her pulley-hauling, and there was no doubt as to which crew retained the sweetest tempers. Thereafter the breeze never quite died out, and while no incident occurred worthy of entry in the log, the passage was not long enough to become monotonous. There was

(*Continued on page* 382)

Hints on the Use of Some Common Tools

By HOWARD GREENE

SOME of those wise old sayings that people have been firing at each other for goodness knows how many centuries may have been all right and quite useful in their day. They were designed and built in accordance with the requirements of the times, so to speak, and they served their purpose admirably. But—you can always tell in advance when there's a "but" coming—not a few of them have outlived their usefulness, and the only reason they are still made to work is that their employers don't stop to think, but stick to tradition and custom and pass out the ancient "saws" just because no one gets up sufficient spinal rigidity to interpose a contradiction.

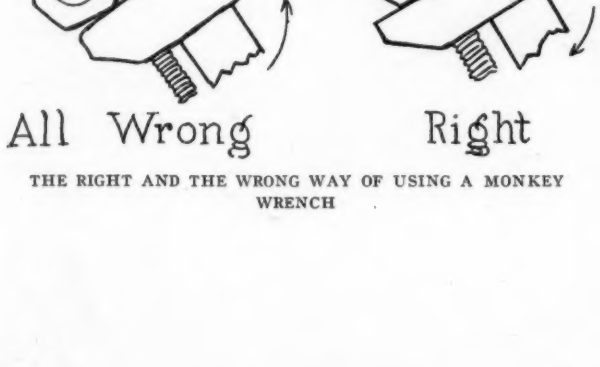
All of which philosophizing is the result of a glimpse of a wise saying duly set forth in a kid's book and laboriously explained: "A bad workman quarrels with his tools." Lordy! The thoughts stirred up by this bit of pedantry come too fast for expression. Perhaps the most vivid recollections are two composite mental pictures. One is of a distinctly "bad workman" sweating and swearing over a motor with the cockpit strewn with tools, most of them battered and bad. The B. W. wields the worst of the assortment, perhaps a money-wrench with its jaws worn and sprung and its back bent from being used as a lever, hammer or anvil. He screws up the wobbly, wiggly nut until the poor old jaws are a near fit on the nut to be operated upon, and heaves on the handle—of course with the wrench turned the wrong way. The jaws spring, slip off the nut and the B. W. barks his knuckles, spits out vicious remarks, and, though he may occasionally fire a profane shot at the tool, he generally curses the nut, or the particular surface that peeled his knuckles, or things in general.

Mental Picture No. 2 introduces the good workman, of course, plugging along quietly with his job and making progress. Presently he gets hold of a wrench, we'll say, that bears some resemblance to the one already dragged into the argument. Well, what does he do? Put the wrench on the nut and proceed to make a market for newskin? Not much. The first thing he does is to get up a violent quarrel with the tool, and immediately there is a grave question of veracity between the old saw and the actual facts, for, behold, the Good Workman is quarreling with his tools! It's a cinch that if the G. W. can improve the tool he does it, or that he uses some other in its stead, or that, if he must employ the battle-scarred veteran, he does so in such a suspicious way that there is no doubt whatever of the quarrel between the two.

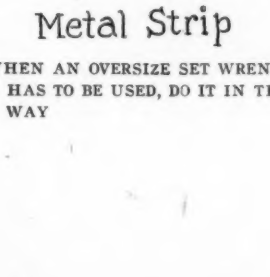
Perhaps the most acrimonious kind of a disagreement is that which occurs when a B. W., with a lot of bum tools, gets stuck and goes over after the G. W. to see if he won't, for heaven's sake, try to do something with that don't-write-it-in-full pump that ought to come off but firmly declines. The G. W. starts handling the assortment of horrible hardware, and if he knows the B. W. well enough, he says what he thinks in full; otherwise he says it only in part and thinks a good deal more that he would have said had his tongue not been tied.

To descend to actual practicalities, or practical actualities, it is about equally easy to put good tools into bad condition, or, on the other hand, to keep them in good shape. To revert to the well-known monkey-wrench once more, it may be said that it stands about at the head of the list of tools that are inhumanly treated. There are several wrong ways of using a monkey-wrench, and only one right way. When the wrench is put on a nut it should be a snug fit; the nut should go as far into the jaws as possible, and the tool should be applied with the jaw side facing the direction in which the nut is to turn. Further, the wrench should not be applied with the jaws straddling the end of the bolt.

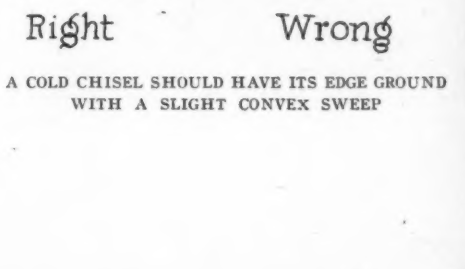
Why not? Plenty of good reasons. If the wrench is a loose and sloppy fit on the nut it is liable to slip; it tends to round off the corners of the nut; it tends to wear the jaws of the wrench abnormally; and the angles of the nut, under the pull on the wrench, set up a powerful wedging action tending to force the jaws apart and, by constant repetition, loosen them. Besides these reasons, a wrench so applied is of little use unless it is a large one



THE RIGHT AND THE WRONG WAY OF USING A MONKEY WRENCH



WHEN AN OVERSIZE SET WRENCH HAS TO BE USED, DO IT IN THIS WAY



A COLD CHISEL SHOULD HAVE ITS EDGE GROUND WITH A SLIGHT CONVEX SWEEP

compared to the nut. The nut should go as far in as possible, because if it is caught near the ends of the jaws the tool is subject to leverage that will bend the jaws if the job is a heavy one. If the wrench is applied with its back facing the direction of rotation every part of the tool itself will join in helping the shank to bend, and a comparatively moderate strain will start a kink that will partially cripple the unfortunate tool for the rest of its existence. Of course where the wrench is used for very light work, under little or no strain, most of these rules can be ignored without bad results; but it's just about as easy to do things right as wrong, and one might as well get into good habits as bad. As for the very common conviction that a wrench is a first class substitute for a hammer, a crowbar or an anvil—well, just take a look at the wrenches that decorate the tool kits of the majority of boats, and the answer will be found.

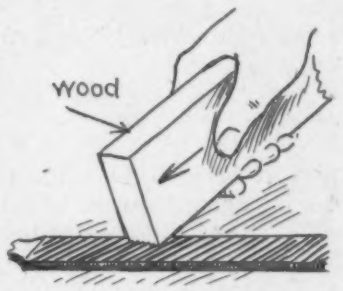
Solid or "set" wrenches usually "get theirs" by being used on nuts for which they are not adapted. As a rule, however, a solid wrench that is too big for its nut will suffer less from the encounter than will the nut. A badly fitting spanner will spoil a nut in no time, and if there is anything about an engine that looks sloppy and generally disreputable, it is a set of nuts with all the angles worn round, so that it is hard to tell where the "flats" are and harder still to get a wrench to stay on them. Sometimes an oversize solid wrench has to be used, but when this happens it is not a great deal of trouble to slip a bit of sheet metal, or a washer or something into the space and produce something like a close fit on the nut. It certainly pays in the long run.

Both adjustable and non-adjustable wrenches that have been maltreated can be often reformed. Solid wrenches should be reforged; even an amateur blacksmith can easily heat up the tool, hammer the bulged metal of the jaws down to flatness, and close in the space slightly. After cooling, the space for the nut should be carefully filed out to fit, keeping the faces parallel and square. In the case of a monkey-wrench, the jaws can be heated and hammered into squareness and the shank straightened, the job being finished by filing the jaws. If the nut and screw are gone the wrench probably is a cheap one and might as well be chucked into the scrap or kept to lend to people who are known to forget to return things they borrow.

Just because a cold chisel is chased to its work by main force, it does not follow that there are no fine points about the tool or its use. There are. And it is so easy to make a cold chisel work well and freely that it is a mechanical crime to give tool-box room to the sort of thing that usually is dignified by the name. A cold chisel for miscellaneous work should have its edge ground with a very slight convex sweep—that is, the cutting edge should not be straight, but a little curved, like the edge of an axe. The edge will bite better, will cut better and the corners will not be nearly so likely to break as if the edge were straight. And the difference between the work of a sharp chisel and a dull one is amazing. It may be news to some, but it is a fact that not a few mechanics go so far as to put their cold chisels on the oil stone—and find it worth while, too. If a chisel is in bad shape and there is no grindstone handy, it can be fixed up by softening it, dressing the edge with a file and then rehardening and tempering.

Hardening and tempering, by the way, are two very different things, though many have an idea that the two terms mean one and the same thing. Take a piece of tool steel, heat it to a good red, and plunge it in water till it cools. It will come out so hard that a file won't look at it, but so brittle that a crack with a hammer will shiver it into fragments. The harder you make a piece of steel the more brittle it gets, and vice versa; so it becomes necessary to temper this excessive hardness in order to get rid of the brittleness—in other words, it must be made a little softer. The softening is done by reheating, and the extent of the tempering action is indicated by colors which appear on the metal. But blacksmiths, with real ingenuity, have evolved a scheme which obviates the necessity for two heatings, and which has also important advantages.

The chisel to be treated—or it may be most any tool—is heated for about three inches back of the cutting edge to a bright cherry red, and the whole tool is plunged vertically—remember carefully the vertically—into the water and instantly withdrawn till about two inches of the point only are submerged. In three or four seconds the steel is removed from the water with the point practically cold and as hard as glass, and part of the shank still sizzling hot. With a piece of emery cloth on a stick, or a bit of coarse whetstone, or piece of an old grindstone, the flat of the blade is very quickly rubbed clean and bright and then brushed with the bare hand or a bit of waste. Then watch the cleaned surface. Naturally the heat from the still uncooled shank will travel along toward the point, which will get hotter and hotter; the advance of temperature will be indicated by the changing colors which move along with the heat. At first the bright steel will assume a pale straw color, which will deepen into yellow, light and dark brown, purple and blue, finally trailing off into a blue that is almost black. The darkening shades indicate increasing softness of the steel, and the tempering may be arrested at any point by quickly immersing the tool in water completely until it is cool. In the case of the cold chisel, wait till the cutting edge has turned a rather dark straw color before the final "quenching," and it will be found to hold a good edge. This method of tempering has the further advantage that it leaves the shank, back of the cutting edge, softer than the edge, so that the steel will be tough and not brittle there.



CLEANING A FILE

The process of softening a piece of steel consists in heating it, as for hardening, and then allowing it to cool as slowly as possible, buried in the ashes, or in lime, if possible. But if merely heated to a cherry red and allowed to cool in the air, tool steel of ordinary quality will be workable with a file.

Come back to the tool question. How often is there a really good file, or an efficient hack-saw, in a motor boat tool box—that is, if there has been any time or opportunity to use tools? Answer—about once in a blue moon. The way some people use a hack-saw is scandalous. The point is this: the teeth of a saw, no matter what kind of a saw it may be, are all pointed in the same direction, because they are designed to cut when they are pushed forward. When on the back-stroke, however, they are of no use as cutters; the best they can do is to scrape off a little dust. Nevertheless, you will see many an able-bodied man with a little hack-saw in his hands lunging viciously forward so hard that the teeth are broken by his weight, and dragging the tool backwards with almost as much force, only succeeding in dulling the cutting teeth and using his strength to no purpose. For goodness' sake, give the poor saw a chance. Give it plenty of pressure if the cut is wide, but be reasonable about it if the metal is not thick. If the saw is going hard, sticking in the slit, rub the blade with a little oil or grease—not much is needed. If the metal is thin, like a piece of tubing or light sheet, use a blade with fine teeth, and if it is a heavy job, use moderately coarse teeth. Talking about hack-saws, it is worth knowing that a fairly wide slot can be cut by putting two blades side by side in the same frame. When a hack-saw blade is worn out, don't desitate about discarding it; they are not expensive luxuries.

A file is a sort of cousin to the saw; its teeth are cut on the same principle, and it won't cut worth a cent on the back stroke. When the teeth get all clogged up, they can be cleaned out by rubbing a piece of wood lengthwise of the teeth—that is, across the file—till the wood conforms itself to the little ridges and grooves and scrapes out the clogging stuff. This helps the action of a file wonderfully. Cast iron and brass are not likely to fill up a file, but the more fibrous metals—steel, wrought iron, copper, etc.—are a nuisance in this respect. If the teeth are well rubbed with chalk they will not fill up for a long time, and clinging particles are easily dislodged by tapping the edge of the file sharply

(*Continued on page* 382)

The Early Races for the America's Cup

The First Attempts to Take Back the Cup in 1870 and 1871. Mr. Ashbury at Odds with the New York Yacht Club. Queer Sporting Ethics of the Period

By HERBERT L. STONE

ON bringing back the Hundred-Guinea Cup won at Cowes against a fleet of fifteen cutters and schooners, Commodore Stevens, the principal member of the America's syndicate, kept the inartistic piece of silver in his drawing room until 1857, when he and his colleagues presented it to the New York Yacht Club to be held as a perpetual challenge cup open to yachts of all nations, between 30 and 300 tons' measurement, as was told in the last chapter. Even then, thirteen years were to pass before any foreign yachtsmen challenged for the trophy.

It was not until 1870 that negotiations were finally completed with Mr. James Ashbury, owner of the English schooner Cambria, for a race for this cup. Mr. Ashbury's yacht had beaten the American schooner Sappho in 1868, when the latter was in English waters, and apparently this made Cambria's owner rather "cockey," and he proposed various impossible races for the cup, one of them being for two out of three races around Long Island. As the New York Yacht Club and Mr. Ashbury could not agree upon the terms for a race, the New York Yacht Club finally gave the Cambria's owner the option of sailing for the America's Cup in one race over the club's regular course in New York Bay, against the whole fleet, in accordance with its interpretation of the deed of gift. Though protesting against this interpretation, Mr. Ashbury finally decided to sail, and August 8th was the day selected for the race.

It might be said here that on her way to this country in the summer of 1870 the Cambria raced across from Ireland with the American schooner yacht Dauntless—the former winning by one hour and seventeen minutes.

The conditions of the Cup race, whether or not they were in accordance with the intent of the deed of gift, were thus practically the same as prevailed in England when the America won the cup nineteen years before. There was this important difference, however: in the race of 1851 every yacht was sailing to win a personal trophy, while in the race of 1870 twenty-three boats were pitted against one, none of the twenty-three having any interest in the cup other than to prevent its leaving this country.

MAGIC LEADING THE FLEET THROUGH THE NARROWS IN THE FIRST RACE FOR THE AMERICA'S CUP IN THIS COUNTRY

Sailing against the visitor was the following fleet of yachts: The keel schooners Rambler, Dauntless, Fleetwing, America, Restless, Tarolinta and Alarm, and the centerboarders Phantom, Madgie, Silvie, Tidal Wave, Madeline, Idler, Magic, Palmer, Alice, Fleur de Lis, Era, Josephine, Calypso, Widgeon, Halcyon and Jessie.

The Cambria herself was a keel schooner of the deep, narrow English type, stiff and weatherly, though rather heavy looking in spite of her sharp bow. Her principal dimensions were: Length from stem to stern post, 108 feet; beam, 21 feet; draft, 12 feet, and depth of hold, 11 feet. The fleet lined up against her in the one-sided race contained the pick of the American schooners, barring the old America, which was entered by the Naval Academy (where she then was in use as a training ship for the cadets) in response to a strong public sentiment that she should help defend the cup she had won so long ago. She was re-rigged and fitted out by the Navy Department and was not in the best of condition, her rigging being more fitted for a man-of-war than a yacht, it is said, while she had not been tuned up enough to get her in proper trim.

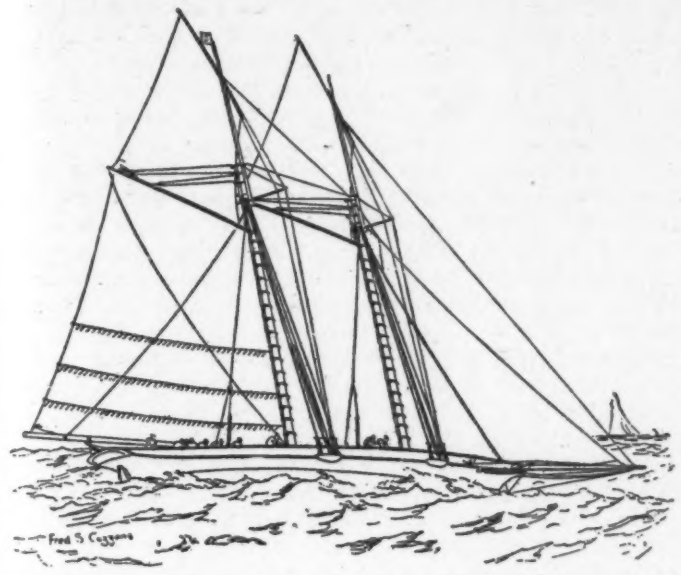
The start was from an anchor, and Cambria was given the windward end of the line by the committee, so that she might have the advantage of that position, with the America next to her. Their good intention went for nothing, however, as the wind shifted just before the start to southeast, and instead of the windward berth, these two yachts were at the leeward end of the line, where they were considerably bothered by the other boats in the early stages of the race.

The start was at 11:26 A. M., and the American schooner Magic was first away, her crew being very smart in getting the "muslin" on her. The crew of Cambria were also on the jump, and she got a good position at the start, but the America was slow, and was last to get off, just as she had been in the race in which she won the cup.

The start being off the Staten Island shore in the upper bay, the course was through the Narrows, down the lower bay to the South West Spit Buoy, to Sandy Hook lightship, and return over the same course, a distance of about 38 nautical miles. The wind being east of south, it was a beat down the bay to the Spit Buoy, and the fleet was soon spread out over a long stretch of water, followed by the big excursion fleet, the twenty-four schooners presenting a beautiful appearance as they fought it out, tack by tack, down the bay, in the fresh summer breeze.

The little Magic, standing over to the Bay Ridge shore, with a strong ebb tide under her, was able, on the next tack, to lay well down through the Narrows, and in this early part of the race she opened up a lead that it was impossible for the others to overcome, though the old America, coming along grandly in the stiff windward work, walked through the entire fleet to second place, and was only 4 minutes and 55 seconds behind the Magic at the Spit Buoy—some performance for a nineteen-year-old boat. Cambria had fallen far behind the leaders on this leg of the race, and was in twelfth position as the yachts rounded the Spit and started sheets for the reach out past the Hook. Taking a hitch to the southward when past low-lying Sandy Hook, so that they could lay the lightship, the Idler and Dauntless passed the America and forced her back to fourth position, in which place she rounded the light vessel, the outer mark of the course. Magic rounded the lightship 5 minutes and 24 seconds ahead of Idler, the second boat, and 24 minutes 3 seconds ahead of Cambria.

It was a broad reach back to the Spit Buoy, and one after another the snow-white kites were broken out and sheeted home



ENGLISH SCHOONER CAMBRIA, THE FIRST CHALLENGER FOR THE CUP

until the racers were buried under a cloud of canvas as they tore along at a ten-knot clip, Dauntless doing the seven miles of the leg in 41 minutes. Cambria picked up some on this reach, but did not alter her position in the fleet, being 23 minutes behind the leader, Magic, and hopelessly beaten. As she poked her nose inside the Hook and her crew were getting ready to jibe around the Spit Buoy for the run home, a hard puff off the land carried the Englishman's foretopmast with it. She kept right on going, however, though she lost a little time as the crew cleared away the mess, and jibed around the mark in eighth place.

The run up the bay with a freshening wind and strong flood tide was made in fast time, though the British boat lost some 4 minutes more, and fell back to tenth position, where she finished 27 minutes and 3 seconds, actual time, after the Magic; when the time allowance was applied, this time was stretched out to 39 minutes and 12 seconds.

The old America, finishing fourth in a fleet of newer boats, still beat the Cambria 13 minutes and 3 seconds, actual time. The practice, however, of racing a fleet against one boat is never one to be commended, is at best unfair and unsportsmanlike, and it is pleasant to chronicle that this was the last race in which a challenger was called upon to face these conditions.

On his return to England late in the autumn, Mr. Ashbury immediately set about building a new schooner, as he had determined before he left America to make another attempt for the cup the following year. He felt, however, though he had not made a formal protest at the time, that it was unfair and not in accordance with the terms under which the cup was held to require him to sail against the whole New York Yacht Club fleet, and he entered at once into negotiations with the club to decide this, and some other points at issue, before the next race.

There followed a heated "sea lawyers'" controversy extending over many months before matters were finally settled.

Ashbury claimed, among other things, that if the New York Yacht Club insisted on his racing against an entire fleet that he would challenge for some dozen English yacht clubs, each one of which would name his new schooner, Livonia, as its challenger, and claim a race for each club. Any single race that he might win would, therefore, entitle him to the cup for the club he represented in that race. The New York Yacht Club finally submitted the question to Mr. Geo. L. Schuyler, one of the original America's syndicate, and he very properly held that the donors of the cup offered it to the club for match racing, and that the word "match" as used in the deed of gift meant a race between two boats, and not a race between one boat and a fleet.

It was finally agreed to sail a series of seven races, alternating the courses between the inside one and one off the Hook, the winner of four to take the cup, only the Royal Harwich Yacht Club being recognized, the first race to start October 16th.

The New York Yacht Club reserved the right, however, to name any boat it saw fit for each race, not nominating a defender until the day of the race. Naturally they picked out two light-weather boats and two heavy-weather boats, so that no matter how the wind blew they would have a boat suitable for the conditions. The boats selected were the centerboard schooners Palmer and Columbia, both noted as fast light-weather boats, and the keel schooners Dauntless and Sappho, both considered fast boats in a breeze.

The new challenger, Livonia, left Cowes on September 2d, and, after a slow and tempestuous passage of twenty-nine days, during which she was hove to in a hurricane, and lost sails, broke her foreboom, and carried away her bowsprit, arrived at Staten Island on October 1st. She had proved herself a fine, able sea boat, but the weather conditions did not allow of any show of speed. Her dimensions were: Length between perpendiculars, 115 feet 2 inches; beam, 23 feet 7 inches; draught of water, 12 feet 6 inches.

On the day of the first race the wind was light to moderate and the committee of the New York Yacht Club chose Columbia as their representative. The course was the inside one, starting from anchor, and the starting signal was given at 10:40 A. M.

On the crack of the gun, mooring cables were slipped, headsails sheeted home and, heeling to the northwest breeze, the two yachts were off, stretching down through the Narrows with sheets well off, and followed by the ever-present fleet of excursion vessels. As a contest, the race was uninteresting. The lighter American "skimming dish," as the crew of Livonia styled their adversary, which drew only about five feet of water, while the English yacht drew 12½, slipped along so fast in the light breeze that, passing out of the Narrows, only about a mile and a half from the start, she was three minutes ahead. At the outer mark she was nearly 15 minutes ahead, and at one point of the race she had fully 40 minutes' lead on her rival. Toward the finish she was becalmed under the Staten Island bluffs at Fort Wadsworth, and Livonia closed up somewhat; but the Columbia sagged across the finish line 25 minutes and 18 seconds ahead, which, with the addition of the 1 minute 46 seconds allowed her by the Englishman, gave her the race by 27 minutes and 4 seconds.

Two days later the second race was started, the course being a windward and leeward one of twenty miles, starting at Sandy Hook lightship. Everything would have been well if the course had been laid out as called for, but, with a west-northwest wind of fair strength in the early morning, the course, for some reason or other, was laid east-northeast, or fully four points off a true leeward and windward one. By the time the race started it had "piped up" to a cracking, whole sail breeze, which continued to freshen throughout the contest.

After considerable discussion in the early morning, before the breeze had stiffened, the American committee again chose Columbia as their representative. When sailing instructions were issued nothing was said in them about which way the outer mark was to be turned. Noting this point, the owner of Columbia went aboard the committee boat for fuller instructions, being told "that it could be left on either hand," a fact of which the Livonia's crew were in ignorance.

The Livonia was first off, getting over the line well in advance of Columbia. With a quartering breeze, she hung all her kites aloft and "tore up" the twenty miles of water to the outer mark at a great rate, reaching the stake boat over two minutes ahead of her American rival. Here, owing to the lack of any instructions to the contrary, the skipper of Livonia jibed around so as to leave the mark on the starboard hand, that being the racing rule in England when not otherwise specified. This was a difficult thing to do in the heavy breeze that prevailed. He had a club topsail aloft, and was forced to jibe "all standing." In doing so he was set well down to leeward before he could get his sheets flattened down for the close reach back.

Columbia came down on the mark, and her skipper, knowing

that he could turn either way, naturally luffed around it, trimming in his sheets as he turned, and cut in between the Livonia and the mark boat, thereby taking the lead.

With the wind four points on the quarter coming down, it was naturally a close reach home instead of a beat, and the leg was in no sense a windward one, not a tack being made by either boat. The wind had hardened to a moderate gale and Columbia's crew were obliged to shorten sail, taking in topsails and furling the foresail. Even then she had all she wanted. Livonia hung on to her topsails and sailed a grand race, but could not catch the flying centerboarder, Columbia crossing the line 5 minutes and 16 seconds ahead, and, when her time allowance was added, winning by 10 minutes 33¾ seconds.

On finishing, Mr. Ashbury immediately lodged a protest against the Columbia, holding that by rounding the outer mark as she did she violated the sailing regulations and thereby gained a decided advantage.

This protest was not allowed by the New York Yacht Club committee, which held that in the printed copy of the sailing rules the omission to specify which way the outer mark should be turned left the choice optional.

The third race was scheduled for the following day, over the inside course, and Columbia was again chosen as the defending boat. This did not please her crew any too well, as they claimed that they were worn out by the strain of the two previous races, and it is also said that they had been celebrating their victory too well, believing that Columbia would not be chosen again.

The race was discreditable from our standpoint from the very start. In the first place, Columbia was late getting to the line, and it was after 12 o'clock when the race was finally started, the Livonia waiting until the American defender showed up. The wind was southwest and fresh, not Columbia weather, but Dauntless, which was the committee's choice, had carried away some of her rigging, and Sappho, the other heavy-weather boat, was not on hand.

Columbia bungled the start, Livonia getting away well in the lead. It is but just to say that the captain of Columbia had been slightly injured in the previous race, and, while on board, could not steer the yacht himself. Passing out of the Narrows, the Englishman was three minutes ahead, but once clear of the Staten Island hills, Columbia began eating up the distance that separated her from the flying leader, and had almost caught her at the Spit Buoy, where they turned to go out to the lightship. At this point Columbia's flying jib stay parted, letting the sail stream out to leeward, and she lost some six precious minutes before the crew could muzzle it and get her on her course again.

After rounding the lightship about a mile astern of Livonia, Columbia broke her steering gear on the way back and became unmanageable, so that the mainsail had to be taken off, and she ran up the bay before the favoring breeze under forward canvas only, crossing the line 19 minutes and 33 seconds behind Livonia. When time allowance was applied, this was reduced to 15 minutes and 10 seconds.

The count now stood two to one in favor of America, and the Sappho was chosen to meet the Livonia. The fourth race was held two days later, October 21st, and was a windward and leeward one of 40 miles, starting from Sandy Hook lightship. The wind was light southerly at the start, and it looked more like Columbia's weather than Sappho's. The course was set at S.S.W., as the committee expected the wind to haul, which it did, making the first leg a perfect windward one.

The Sappho's skipper got the best of the start, putting his boat over the line 1 minute and 52 seconds ahead of the English yacht, which was sluggish in the light breeze. The yachts tacked toward the weather mark in slow hitches, without either gaining any decided advantage, until about three o'clock, when the breeze hardened and was soon blowing a reefing breeze. Sappho hung on to her topsails until she was pretty well buried, finally taking them in. The sea was making up hard and fast and Sappho gave a grand exhibition of sailing. Buried until her lee rail was well under, she walked out to windward in a way that made Livonia appear to be standing still; in an hour she had obtained a lead of about 28 minutes, and was some two miles ahead when she turned the outer mark. She was frequently buried nearly to her hatch coamings, and a small boat that was stowed in the cockpit to get it out of the way was washed overboard.

On the run back, Sappho was never pushed, though she averaged 12 knots for the entire leg, making the 20 miles in 1 hour 42 minutes and 14 seconds. She crossed the finish line over 31 minutes ahead of her rival.

Two days later the last race was sailed over the inside course. It was getting late in the year for yacht racing, October 23, and fresh breezes were looked for, so Sappho was again chosen, though the Palmer was on hand if the committee wanted to put in a light-weather boat as best suited to the inside course.

Livonia was first away, and worked out a nice little lead of several minutes, which the Sappho was some time in overcoming. Going down the lower bay, the American schooner soon "found herself." In the W. by S. wind, making a broad reach of the first leg, she traveled like a torpedo boat, and before the outer mark was reached she had worked through Livonia's lee and taken the lead. On the beat back from the lightship to the Spit Buoy she again demonstrated her windward superiority and opened up a lead of 24 minutes. The Livonia could not gain on the run home, and was 26 minutes and 36 seconds astern at the finish.

This race officially ended the series, the American boats having won four races out of the seven, as specified in the agreement.

Mr. Ashbury had other views on the matter, however, and he claimed a continuation of the series on these grounds: That his protest in the second race against Columbia's turning the mark the wrong way should be

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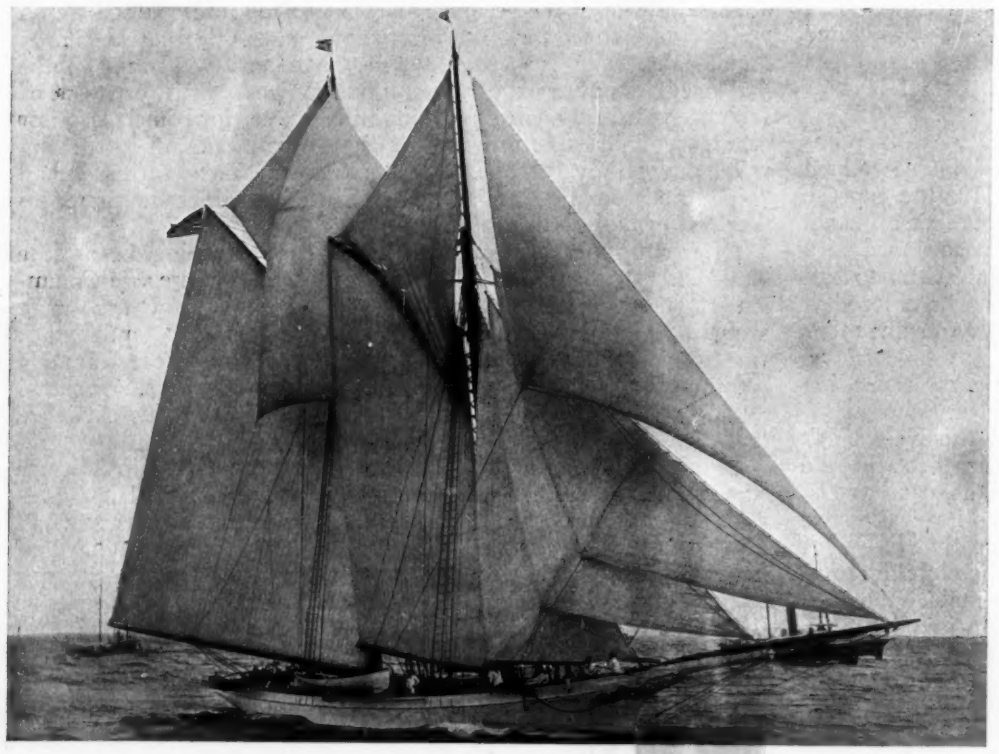
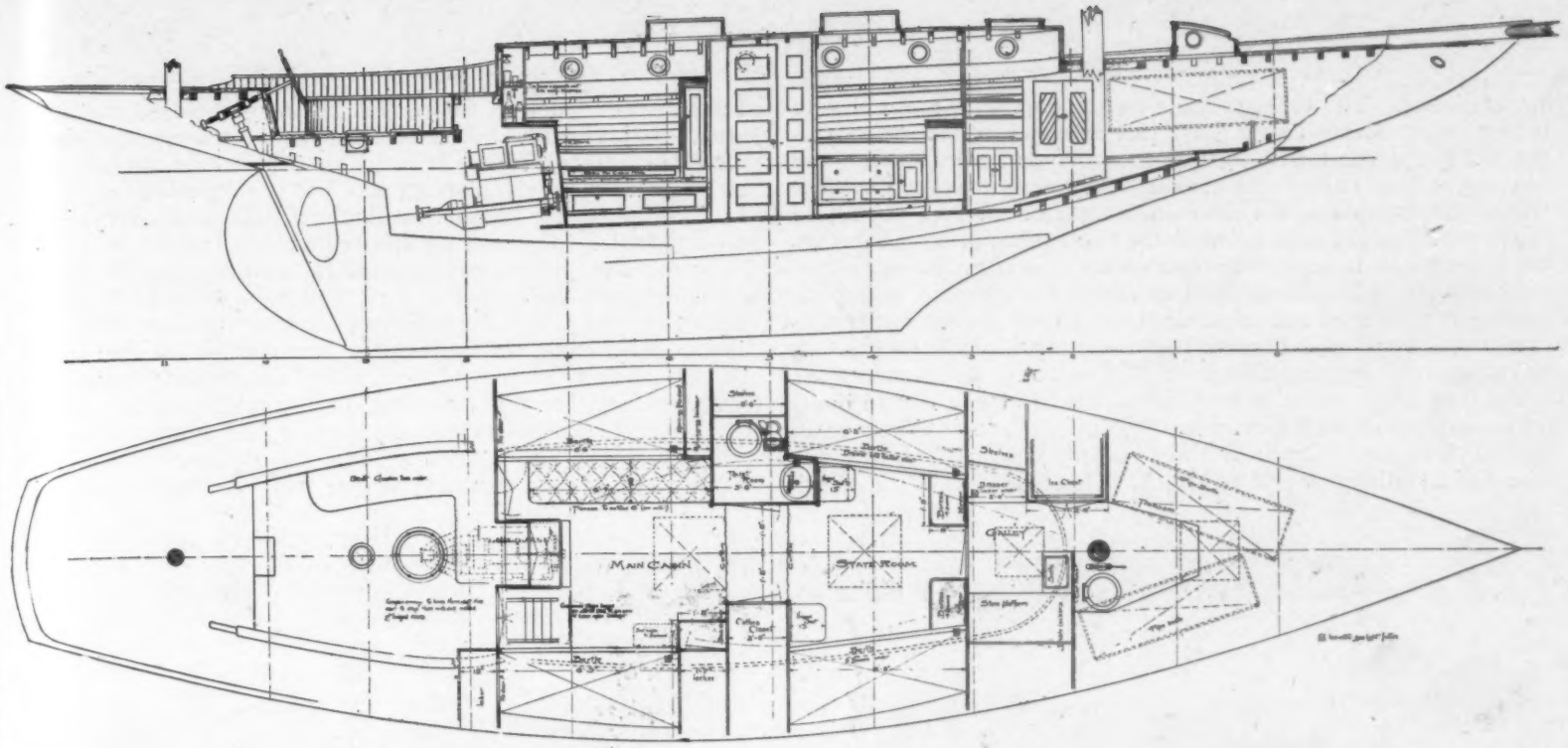


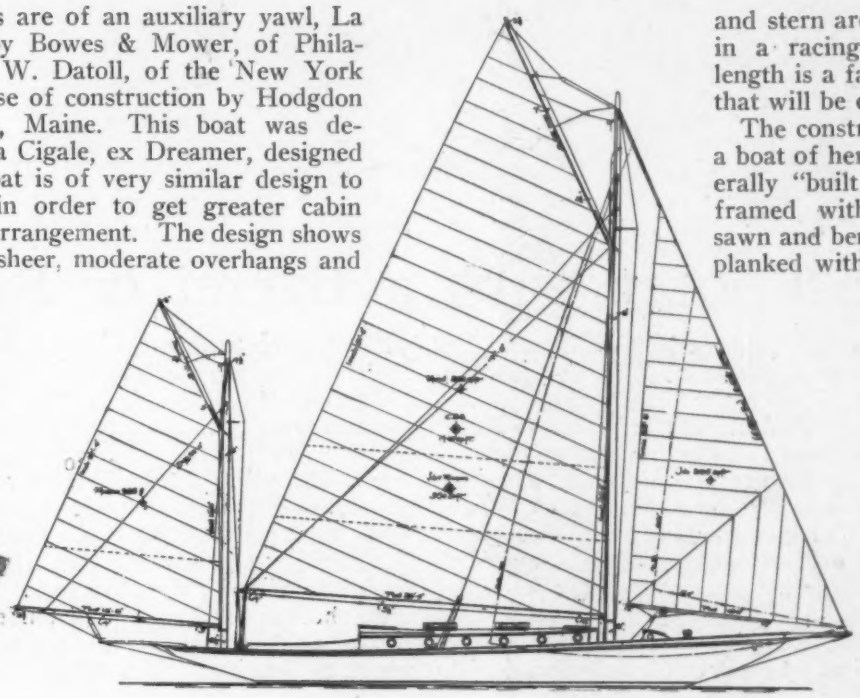
CENTERBOARD SCHOONER COLUMBIA, WHICH BEAT LIVONIA TWICE, YET LOST THE ONLY RACE FOR THE CUP UP TO THE PRESENT

In the next issue the two attempts for the Cup made by Canada in 1876 and 1881 will be described



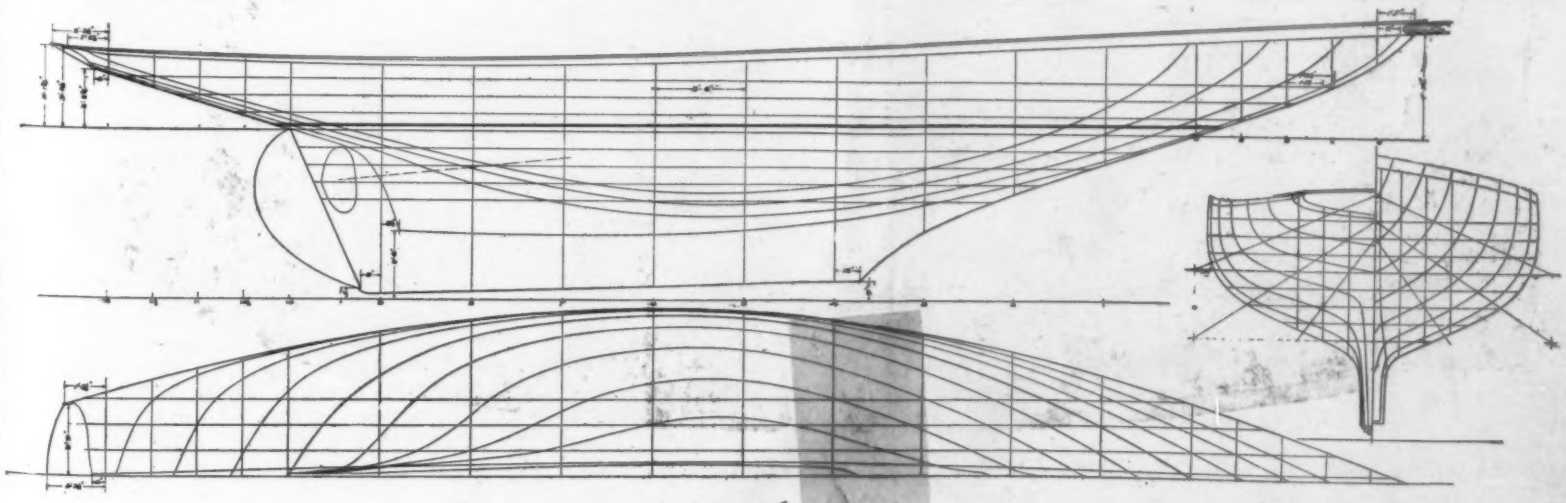
La Cigale II—A 35-Foot Waterline Auxiliary Yawl

THE accompanying plans are of an auxiliary yawl, La Cigale II, designed by Bowes & Mower, of Philadelphia, for Mr. M. W. Datoll, of the New York Yacht Club, and now in course of construction by Hodgdon Brothers, of East Boothbay, Maine. This boat was designed to take the place of La Cigale, ex Dreamer, designed by Mr. Mower. The new boat is of very similar design to the old one, but is larger, in order to get greater cabin accommodations on a similar arrangement. The design shows a handsome craft with good sheer, moderate overhangs and ample freeboard. The draft is 6 feet 3 inches, with a long keel to insure good handling and easy steering and also ease in hauling out. The lines indicate the influence of the modern rating-rule boat with such modifications as necessary to meet the requirements of a cruiser. The midship section shows a straight floor with good deadrise, and a firm bilge, which turns into the topside close to the waterline. The waterlines and sections at bow and stern are sharp, though not so fine as in a racing boat, where quarter beam length is a factor. This will give a vessel that will be easy and dry in rough water.



The construction is unusually heavy for a boat of her size and type, and she is literally "built to last a lifetime." She is framed with a combination of double sawn and bent timbers of selected oak and planked with 1¼" yellow pine. The interior is thoroughly treated with carbolineum wood preserver, making dry rot impossible. She has 8,000 pounds of ballast in her lead keel, and the balance will be carried inside.

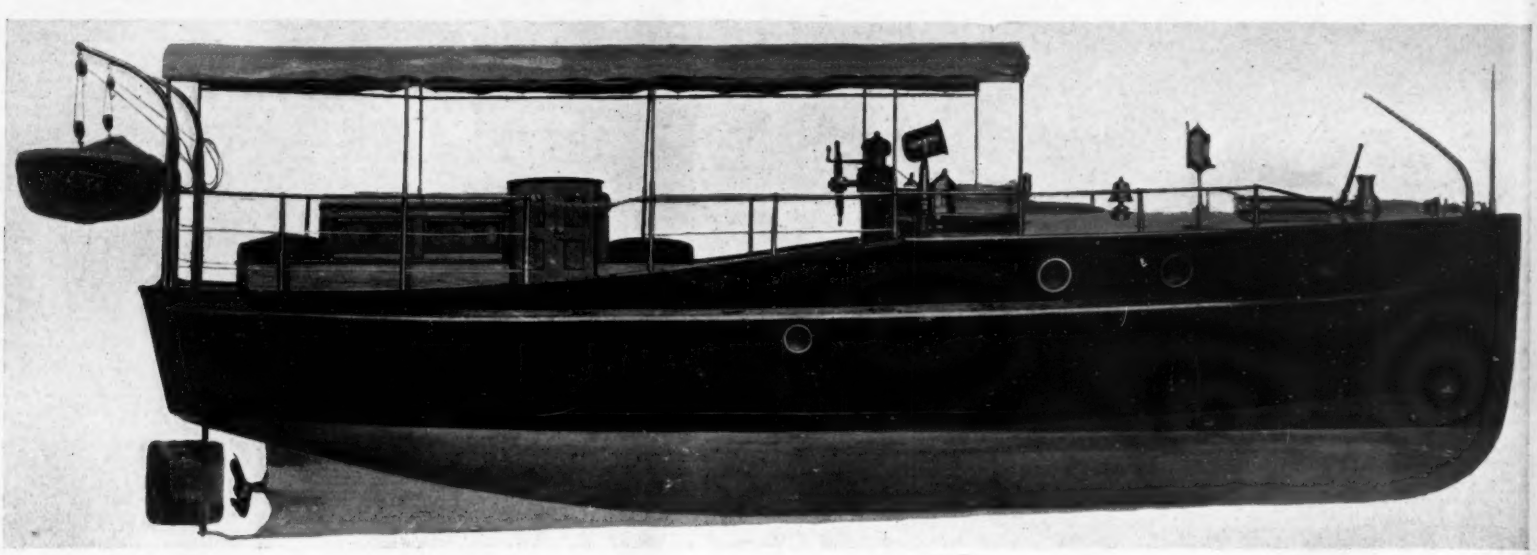
The arrangement below deck comprises a main cabin with berth on either side and an extension transom on the port side, giving sleeping accommodations for three persons. The stateroom is forward, with berths on either side and two bureaus at the



forward end. The toilet room is on the port side, and opposite it is a large clothes locker. By this arrangement the inerior is practically open as far forward as the galley bulkhead, making the boat seem very roomy and avoiding the cramped feeling evident where the interior is cut into small staterooms. At night two heavy portieres are used between the two cabins, arranged so that the toilet room is accessible from either stateroom or cabin. A heavy curtain will also be used to divide the forward stateroom when it is to be used as two single rooms. One interesting feature is a drawer under each berth to hold a dress-suit case so that it can be stowed without unpacking and still be gotten at conveniently.

The auxiliary power is installed at the after end of the main cabin, and is a Holmes 4-cylinder, 4½" by 6¼", 20-25-horsepower motor. The propeller is a three-bladed Thompson feathering wheel of 24" diameter and 22" pitch. This outfit will give a speed of about seven miles per hour. The engine is enclosed in a locker forming a side board, built in such a way that it can be entirely removed if necessary, and so arranged that the engine can be started and operated without removing it. The gasolene tank is located in the cockpit under the seat, so that any leakage or overflow will go overboard through the cockpit scuppers.

The sail plan shows a pole-masted rig with lower sails only and no unnecessary top hamper—a rig that will stand hard service. The sails are by Wilson & Silsby, so that the boat is a New England product in every particular. Her dimensions are: Length over all, 52 feet 6 inches; length waterline, 35 feet; breadth extreme, 13 feet; breadth waterline, 12 feet 3 inches; draught extreme, 6 feet 3 inches; freeboard bow, 4 feet 1 inch; freeboard stern, 3 feet; freeboard, least, 2 feet 6 inches; area main sail, 850 square feet; area mizzen, 255 square feet; jib, 295 square feet.



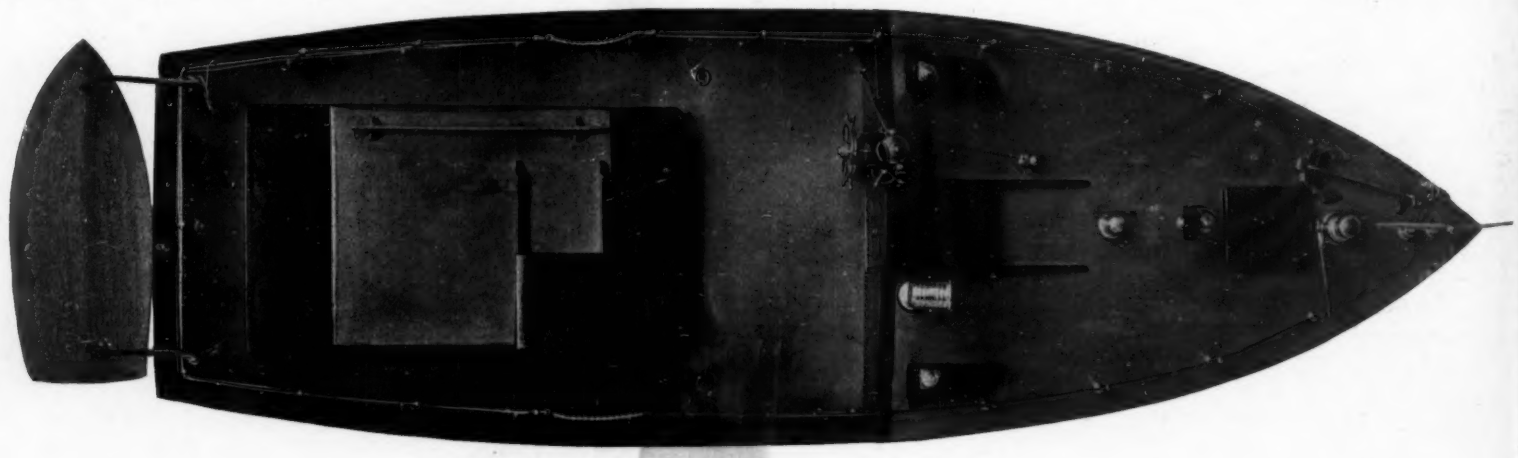
A 35-Footer with a Barrel of Room

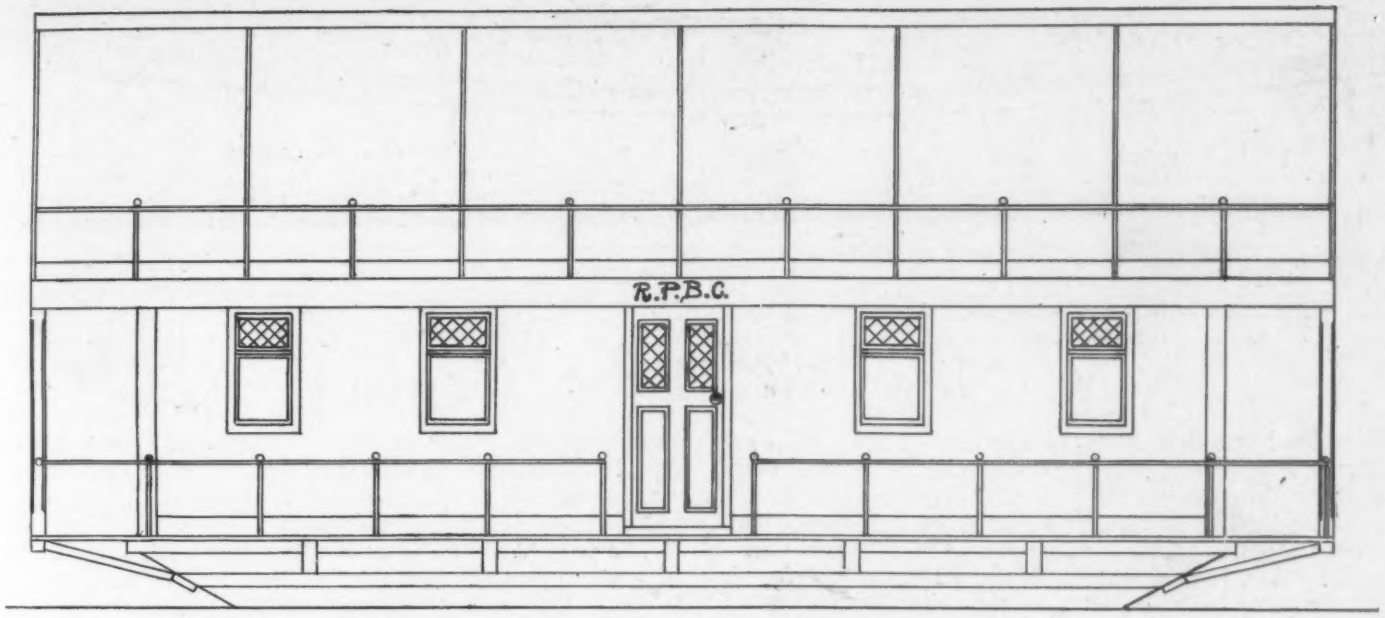
IT isn't often that a 35-footer can be turned out with practically as much accommodation as a 50-footer. Yet in the little boat of the former length, shown in the accompanying photographs, Mr. Carlton Wilby, of Detroit, Mich., seems to have accomplished this result. The boat is to be built as a stock or standard model, and is called by the designer a "home ship," inasmuch as she is designed for four persons to live on in comfort and with every convenience. The boat is of the raised-deck type, V-bottom model, and is well proportioned and able, the model making for seaworthiness and stability, and at the same time being easily driven.

The principal dimensions are: Length over all, 35 feet; beam, 11 feet; draft, 3 feet. Every inch of room below decks is utilized, while the arrangement of the after-cabin house is such as not to interfere with the available deck room, as the deck plan will show.

The engine is located amidships under the bridge deck, a power plant of from 15 to 25 horsepower being suitable, depending on the speed desired. The accommodations consist of a main cabin forward, with galley and large toilet room and an owner's stateroom aft. Sleeping accommodations for four persons are provided, while eight can be taken care of should occasion arise.

There is 6 feet head-room in all parts of the boat, except in the engine room under the main deck. The main deck is protected by a low bulwark and rail. The tender, or dinghy, instead of being carried on deck, where it is in the way, is swung from davits from the stern of the boat, in real "coaster" style.





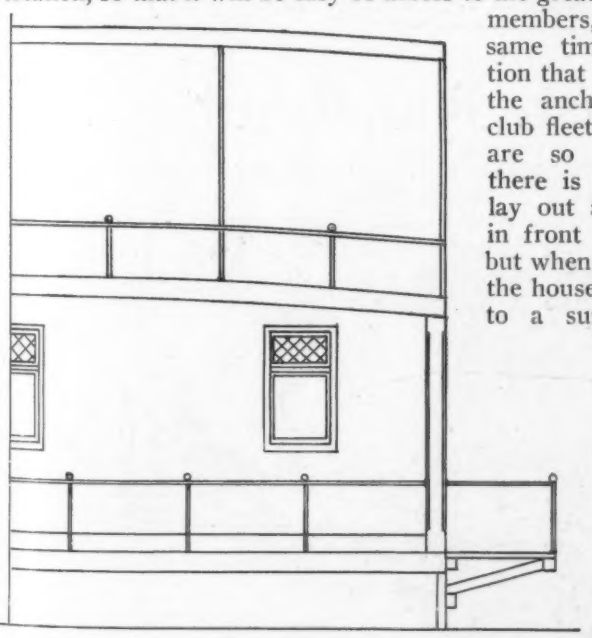
HOUSEBOAT BUILT BY THE RIVERSIDE POWER BOAT CLUB, OF SPRINGFIELD, ILL., FOR A CLUB HOUSE

Houseboats for Club Houses

By GERALD T. WHITE

THERE are many yacht clubs in this country, especially the younger organizations, that find their most serious handicap in the fact that they have not the funds to provide a comfortable club house for their members without going rather heavily into debt. There is nothing that will disrupt an organization as quickly as a poor meeting place. Most clubs could raise the money to build a home, but the cost of land, or even the rental of it, proves a serious drawback. Land that is within easy access of a city or town is usually rather expensive, and many clubs have to be content with poorly located and inconvenient quarters; it is almost impossible to expect members to take much interest in a club of whose meeting place they are ashamed. It is the purpose of this article to show that a plot of ground is not a necessity for club-house purposes, and, also, that a floating home or suitable houseboat is better in many ways besides its low price than unsuitable or poorly located houses ashore.

In the first place, the houseboat can be moved to any convenient location, so that it will be easy of access to the greatest number of members, and at the same time in a location that is suitable for the anchorage of the club fleet. Many clubs are so located that there is no chance to lay out a race course in front of the house; but when you can move the house on race days to a suitable course, there is no excuse for not having plenty of racing throughout the season to liven interest. A couple of good-sized launches belonging to the club members will be able to tow the largest-sized club boat at a speed of some 3 or 4 miles per hour.



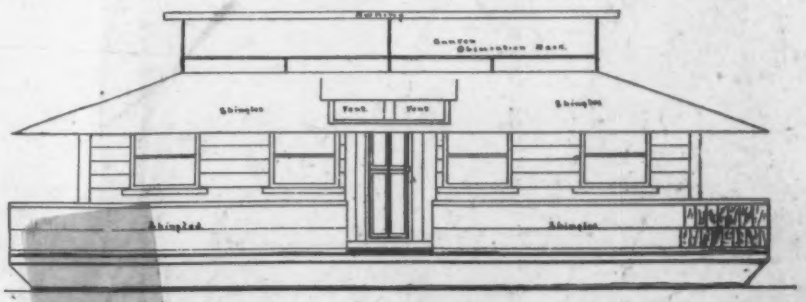
END ELEVATION, RIVERSIDE POWER BOAT CLUB HOUSEBOAT

Another point in favor of the houseboat idea is that there is no pier or float necessary, with its additional cost of upkeep and the danger of its being carried away by ice during the winter. With the houseboat the club boats can come right up alongside the scow and take their passengers directly from the "front porch."

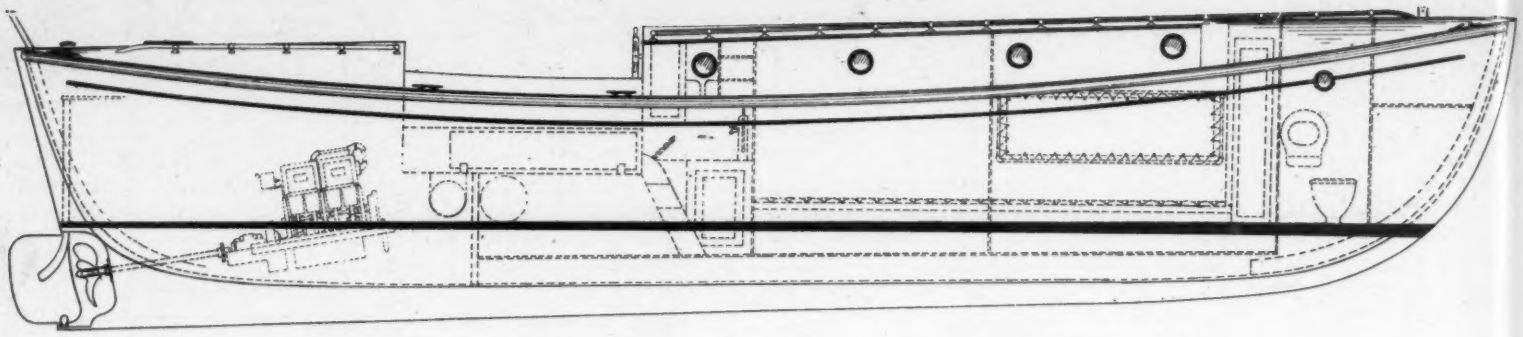
With the club houseboat proposition there is, furthermore, no need for the constant string of dinners, dances, smokers and other more or less successful ways of raising funds to pay the rent or taxes on the property. Of course, dances and dinners help to cement club spirit during the winter months, but there is such a thing as carrying them too far, so that the members only attend because they know their ticket money will help to pay bills that the club owes.

The drawings with this article show two different types of club houseboats. One of them is a boat that was designed by the writer for the Riverside Power Boat Club, of Springfield, Ill. I would like to say, too, that great credit should be given to Commodore O'Hara and the members of that club for starting the club houseboat ball rolling. The second plan shows a somewhat different style of house. It is more on the bungalow-boat type, and is probably what the average club would want. One of the requirements of the Riverside house was that there was to be a flat cabin top big enough to hold all the members for meetings and contests. Below decks this house was laid out with a large meeting room, galley and toilet, while the rest of the space was taken

(*Continued on page* 384)



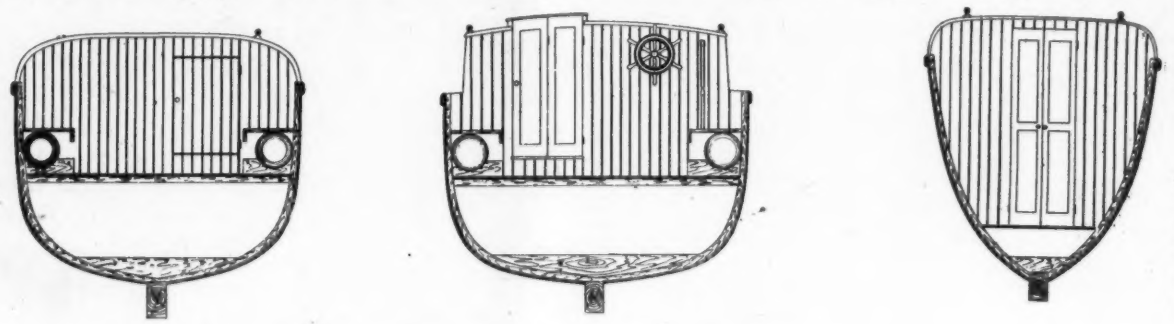
AN ATTRACTIVE HOUSEBOAT FOR A SMALL YACHT OF POWER BOAT CLUB



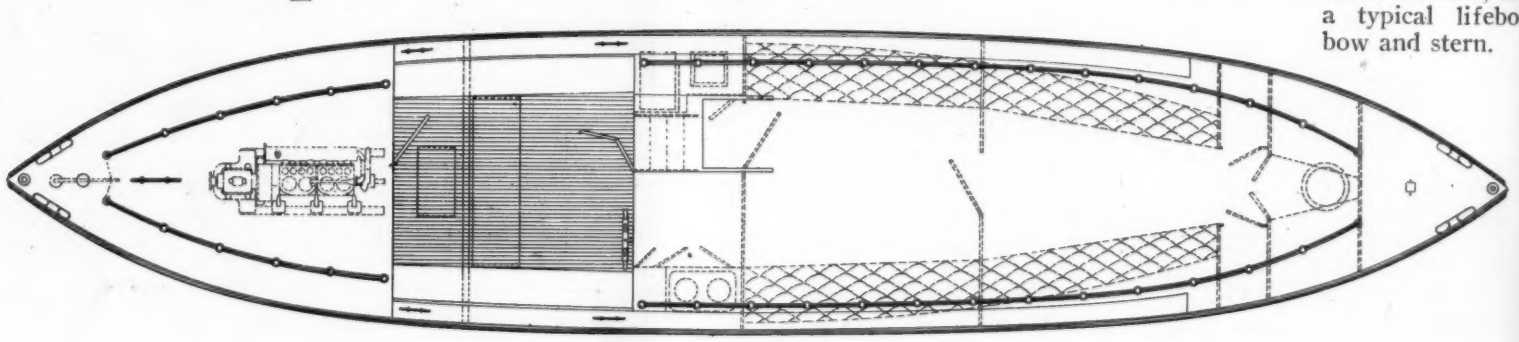
A New Life Boat Cruiser

ONE of the boats that attracted attention at the New York Motor Boat Show was the Holmes Life Boat Cruiser, built on the lines of the McLellan Power Life Boat of the United Life Saving Service, and capable of going anywhere. Since then the Holmes Motor Company, of West Mystic, Conn., have brought out a larger boat of this same model, 41 feet in length and the same beam, 8 feet 4 inches, with draft of 3 feet. This new boat, while following the lines and general arrangement of the old one, has a different cabin layout, giving more room and comfort below. She is single-planked, instead of double, and the cockpit is amidships between the forward and after cabins. The forward cabin contains a galley and large ice box, two separate compartments forward, and a good-sized toilet room on the starboard side of the companionway.

The power is installed under the after turtle deck, and consists of a 4-cylinder 4½ inch by 6¼ inch, 20-25 horsepower Holmes motor. This compartment is entirely separated by a bulkhead beneath the cockpit from the forward cabin, keeping all drippings from the engine, odors, etc., from the living part of the boat, and has a cemented floor, lessening danger from fire. Gasolene tanks are carried under the side seats in the cockpit so that they drain overboard.



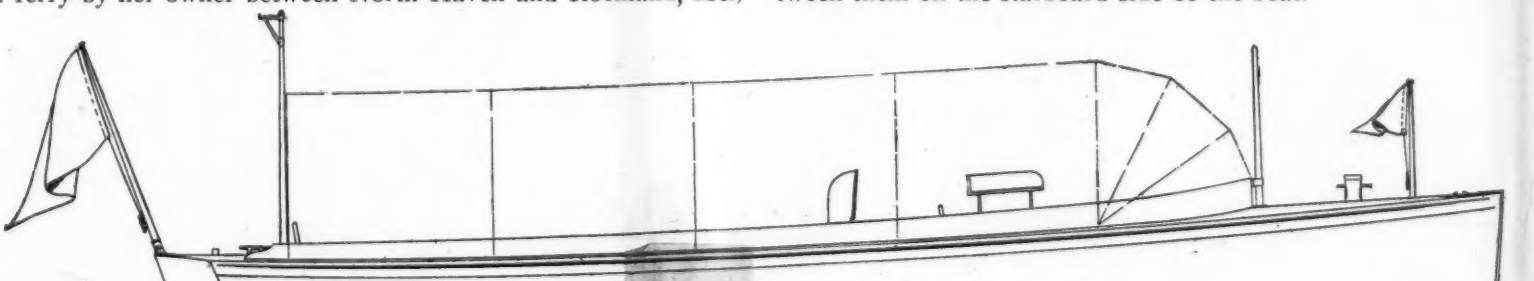
The boat is an excellent model for seagoing purposes, with plenty of sheer, good free board, sharp forward sections, and a typical lifeboat bow and stern.

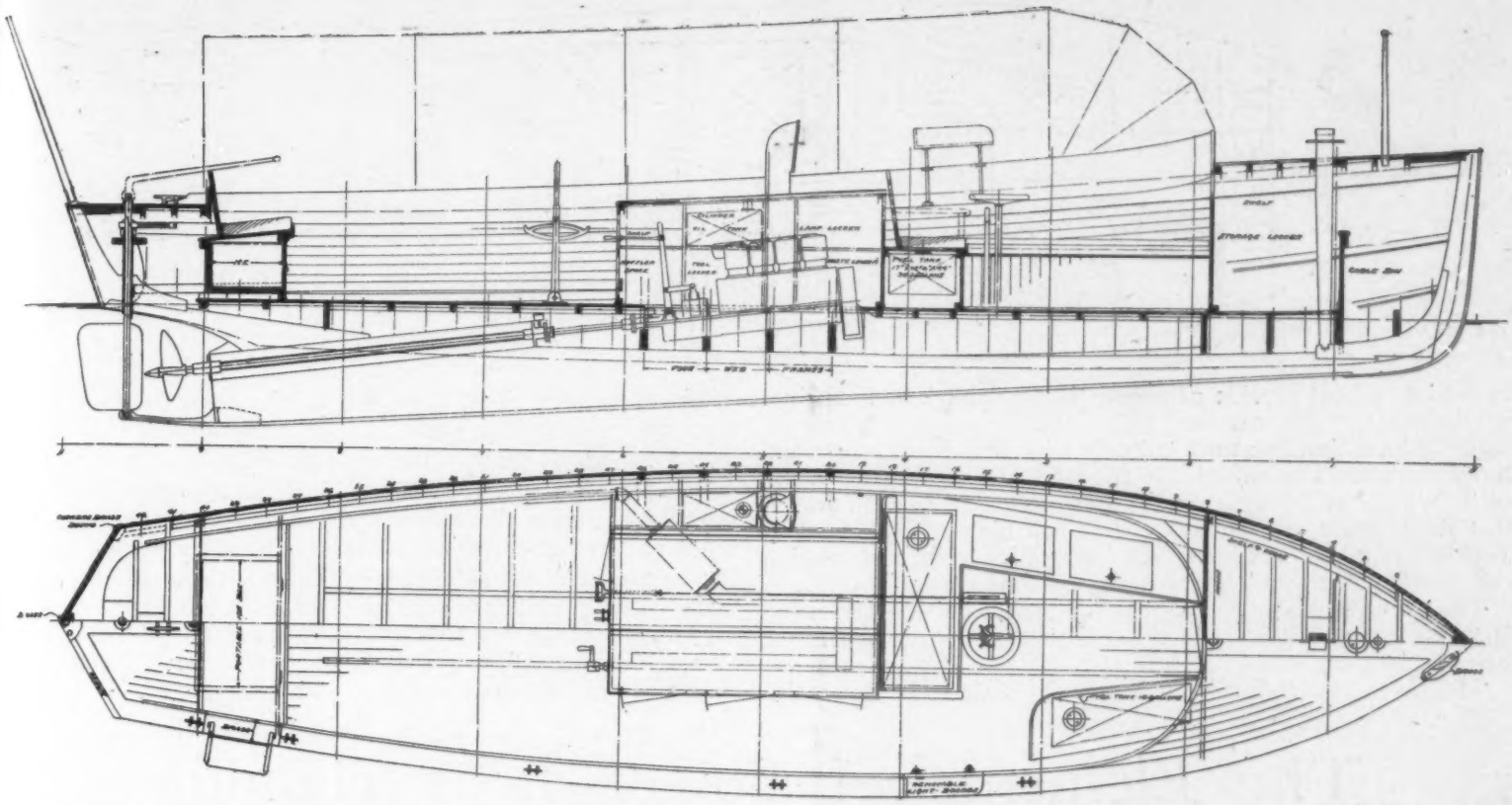


A Handsome 30-Foot Fast Runabout

SOMETHING out of the ordinary in the way of a fast runabout is seen in the plans of the 30-foot boat recently designed by Swasey, Raymond & Page, of Boston, for Congressman Andrew J. Peters, which are published herewith. The boat was designed not only as a fast runabout, but to be used as a ferry by her owner between North Haven and Rockland, Me., and a 12-mile speed is obtained with her 20 horsepower 4-cylinder Murray & Tregurtha motor.

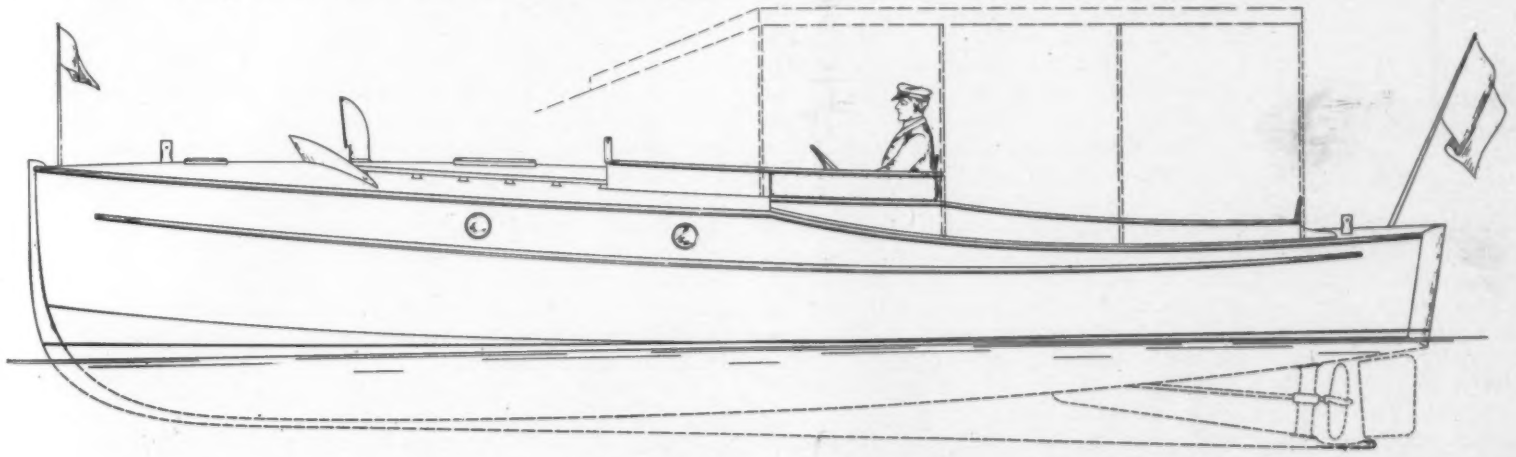
The boat is 30 feet long overall, with a beam of 6 feet 10 inches and a draft of 2 feet 7 inches. The motor is installed amidships, leaving a large cockpit forward and aft with a passageway between them on the starboard side of the boat.





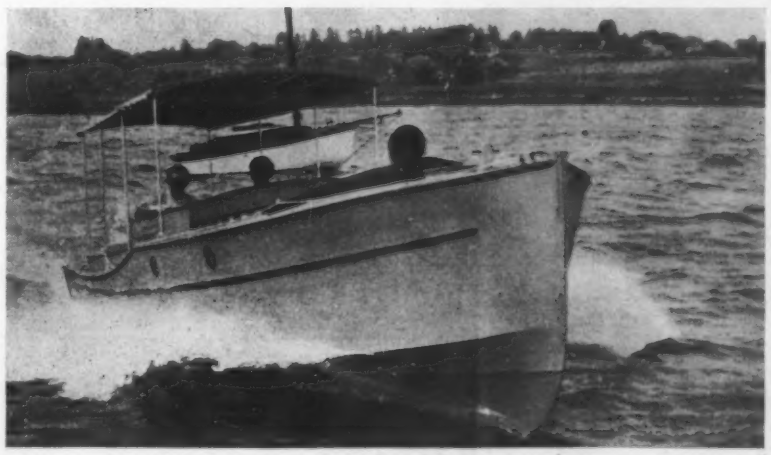
The boat is steered from the forward cockpit, where the engine controls, reverse clutch, etc., are led to the steering wheel. The after cockpit is very roomy with a permanent seat across the after end which contains an ice box, the rest of the space being left open for easy chairs. The motor is housed over and can be controlled from the side steering lever in the after cockpit as well as forward. Sixty gallons of gasolene is carried in three tanks under the seats of the forward cockpit.

The lines of the boat show good dead rise, giving enough displacement to make her buoyant and seaworthy, the total displacement being 4,880 pounds. She is fitted with a spray hood, and makes an unusually complete little ferryboat.



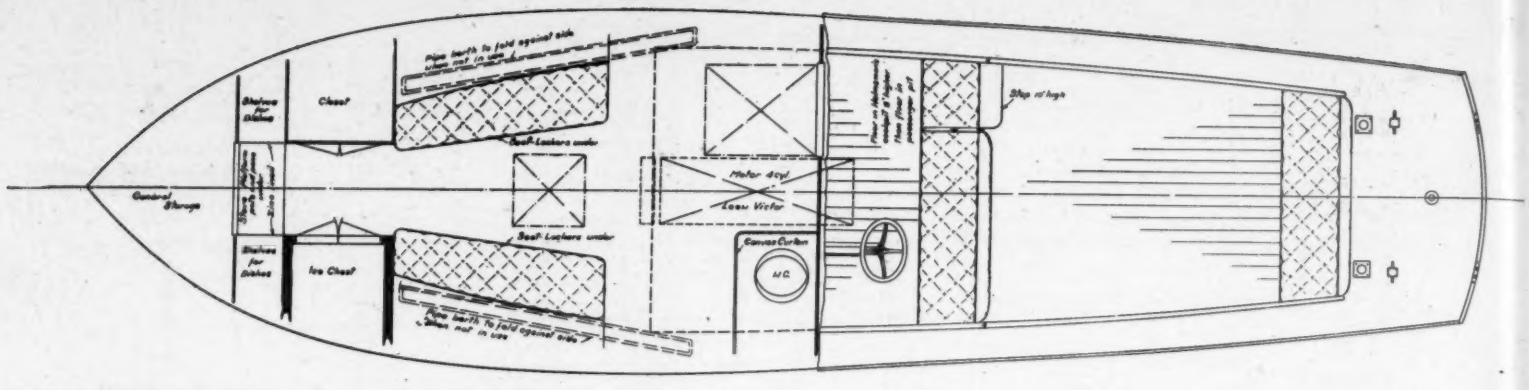
A 30-Foot V-Bottom Day Cruiser

A PAIR of very interesting and attractive cruisers are now building from plans by William H. Hand, Jr., of New Bedford, Mass. One of these boats will be used by Mr. Addison G. Fay, of Chicago, at his summer place near Osterville on Cape Cod, Mass. Mr. Fay's boat will be equipped with a four-cylinder, 25-40 horsepower motor, and has a guaranteed speed of 15 miles. The sister boat is being produced for Mr. Hand's own use and will be equipped



with a six-cylinder 60 horsepower motor with electric self-starting and lighting system. The latter boat, the plans of which are here shown, is expected to show a speed of from 18 to 20 miles under favorable conditions, and will be used by Mr. Hand for shooting and fishing trips off the Massachusetts coast.

Piute V, as the new boat will be called, will make many off-shore sword-fishing trips during the coming summer. In fact, the design was developed



to produce a boat capable of negotiating the roughest water met on the coast in the summer, and she will possess a degree of seaworthiness usually associated only with very much larger and heavier boats. The remarkable trip of Old Glory II and many offshore runs by this type during the past ten years have proved that the buoyant, non-pounding, fast and highly developed "V-Bottom" is a real salt-water sea boat which gives a surprising degree of comfort and safety under all conditions.

The photograph shows a 30-foot day cruiser built by Mr. Hand last summer, and it is upon this design that the new boats are based and closely follow.

The boats under discussion have very snug and comfortable cabin accommodations, including berths for two, toilet, stove, lockers, ice chest, dish racks, etc. The control seat is in the forward end of the cockpit, the floor of which is elevated 8 inches above the after end, providing a high seat, which in turn is protected by an extension rail and weather cloth of the bridge type. This is a rather novel arrangement. The motors are installed in the after end of cabin, gasolene tanks being under the control seat. The cockpits are watertight and self-bailing.

The principal dimensions are: Length overall, 30 feet 6 inches; beam, extreme, 8 feet; and draft, extreme, 2 feet 3 inches. Both boats will be in commission early in the season.

The Elements of Power Boat Handling

By CHARLES H. HALL

Beacon

THE professional seaman is a creature apart from his fellows, and his skill is acquired by long years of training. The amateur cannot hope to rival his professional brother in one short season on the water. Nevertheless, the fact remains that the novice may as easily acquire sufficient skill to handle a power boat under ordinary circumstances as he can learn to drive an automobile. No one would think of stepping into a car for the first time and guiding it through the congested traffic of Broadway or Fifth Avenue, nor should the novice's first trip be made in busy waters like the East River. The first trip with the automobile is naturally made on a country road or a quiet street, and so the amateur skipper should become familiar with his boat in waters unfrequented by busy tugs or ferry boats.

Books cannot teach the art of steering or give to the novice the "pilot's eye," but a few hints may be of use to the inexperienced. The real art of seamanship can be acquired only by actual service on the water, handling the boat yourself. Much may be gained by watching an old hand at work, and by personal coaching by a thorough seaman.

One point about handling the helm is to "steer small"—that is, to move the rudder only enough for the immediate needs. If the helm be put over too far the boat will take a sheer to one side of her course, and will require considerable helm the other way to bring her back. Another point is to meet her when making a turn—that is, alter the helm just before she reaches the new course so that she will not swing too far. Practice should be had steering on ranges—that is, getting two objects in line with each other and keeping the boat on this line. When a range ahead can be kept with certainty, try steering on a range astern. This will be found more difficult, but facility will come with practice. When this is mastered try holding a compass course, which is always confusing at first. The great point about this is to watch the card closely and shift the wheel with the card's first motion. If the boat has a right-handed steering wheel (so rigged that the wheel and boat's head move in the same direction) the simplest rule is to follow the compass card with the top of the wheel—if the card moves to the right, put the wheel the same way. If she is rigged the opposite way—"left-handed"—follow the lubber's point.

After the art of steering is fairly mastered, and before taking your boat out into crowded waters, the rules of the road must be learned. These are found in the Pilot Rules and the Rules and Regulations of the Steamboat Inspection Service, copies of which must be on board every vessel driven by machinery. Study these thoroughly and learn the various whistle signals. The use of two cardboard models cut out roughly to the shape of the boat and placed on a table in various positions, will help to elucidate rules. The two great underlying laws are the so-called "law of port helm" (that is, vessels meeting keep to the right) and that the overtaken craft has the right of way. In the latter case the overtaking vessel must keep clear until she has passed ahead and entirely out of the other's way. Also all steam and motor boats must keep clear of the sailing vessels. The whistle signals may be translated as follows:

One Blast—"I am going to leave you on my port hand," and not, as usually stated, "I am directing my course to starboard."

Two Blasts—"I am going to leave you on my starboard hand."

Three Blasts—"My engines are going full speed astern."

In navigating crowded waters in a small motor boat a bright lookout must be kept along the pier heads for ferry slips, as these craft come out at times most unexpectedly, and are ugly customers to meet with a smaller boat. Remember also that the little motor boat is usually out for pleasure, and the commercial craft are earning a livelihood for their owners, and do not insist unduly upon the right of way. This is especially the case with ferry boats, as these have to make a narrow slip in a strong cross tide, and a little boat can bother them exceedingly. Take note also of Rule 27, the little joker about "regard being had to the dangers of navigation"—that is, do not attempt to hold up a liner in a narrow channel or to insist on your rights in a place like Hell Gate. The commercial vessels give and take, and do not crowd each other at critical points.

When in open water keep a bright lookout ahead and on both bows, and remember that danger exists when another boat does not change her bearing—that is, when she is seen in the same direction steadily. You may be in open water like Vineyard Sound and see a big schooner a mile or so away. Line her up

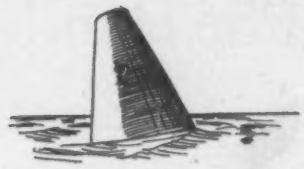
Bell Buoy

Beacon

Gas and Whistling Buoy

Spar Buoy

Can Buoy, Odd Numbers



Nun Buoy, Even Numbers

with a rail stanchion, and note from time to time, keeping your own boat steadily on her course, whether the other craft draws ahead or astern. If she hangs in the same spot, risk of collision exists. Above all, it is better to be safe than sorry. Do not try to cross another's bow, unless you are absolutely sure that you can do so with plenty of room to spare. It takes only a moment longer to slow down or stop and go under her stern. Remember, too, that a vessel having the right of way must keep her course and speed, and that the one that must keep clear must do so even if she has to stop and back. In crowded waters a change of speed is less confusing to other captains than a change of course. In changing course for the vessel nearest you do not forget the one approaching astern of her, or you may get out of the frying pan into the fire.

In blowing your whistle signals give them in plenty of time, and watch the approaching boat, if a steamer, for her answer. Steamboat captains watch for the steam from the other vessel's whistle, and can tell whether one or two blasts have been blown even though the signal itself is not heard. Occasionally collisions do occur even among the expert licensed men, and are often due to the misinterpretation of signals; sometimes to carelessness or stubbornness. The comment is that the rules are to "prevent collision."

In making short runs about your home port, which you should know as thoroughly as you do your own house, chart and compass are little used, but before one ventures far outside the use of both must be mastered. Learn the compass card by quarter points, so that these can be named in either direction from any point. Learn the card also so thoroughly that a glance will give you the name of any point, and you will not have to run over the whole series to ascertain the name of the one noted.

The popular idea is that the compass points infallibly to the north pole, but, like many such ideas, this is a fallacy. The needle seems determined to point anywhere but true north, there being only a few places on the globe where it does so. It is affected by variation—that is, it points to one side or the other of the meridian—and this variation changes from year to year and place to place. The change is small and fairly regular, and magnetic surveys have determined the variation in different places accurately. The compass, if set up ashore or in any place free from local attraction, will point not true north but magnetic north. In addition, the needle is affected by any iron or steel in its vicinity, producing what is called deviation. This deviation is not a constant, but changes on different courses, and has caused the loss of many a stout ship. It can, however, be practically eliminated by having the compass adjusted by a competent man. Unless the deviation is very small this should be done. When once adjusted all iron and steel should be kept away from the binnacle, or trouble will ensue.

Just as we have maps for the land showing hills, valleys, rivers, roads, etc., so there is the chart depicting the features of the coast and the inequalities of the bottom of the waterways. The outline of the coast is shown, and in addition the depth of water and character of the bottom over all the area covered. Close to the land, and on large scale charts, the soundings are given in feet; on the ordinary chart they are in fathoms outside of the three-fathom line. Near the coast the water of less than three fathoms depth is indicated by stippled shading, so that one can tell at a glance whether a figure on the chart refers to feet or to fathoms. Soundings give the depth at mean low water, and where there is much rise and fall the stage of the tide should be allowed for in reading the chart. Besides showing the depth of the water, the chart gives the location of every rock and shoal; the location and characteristics of every lighthouse, light ship or beacon; the position, color and number of every buoy; the principal objects ashore, and the topography of the coast for a mile or more inland. The nature of the bottom is also noted, whether rock, sand, mud, gravel or whatever it may be. As space is lacking, these notes are made by symbols or abbreviations, the key to which should be learned by heart.

Practice should be had in chart reading and in laying off courses, locating yourself by bearings, etc. These matters will be taken up in detail in a later article, but one should become familiar with the meaning of every mark and character on the chart, and be able to locate immediately any danger. This requires practice, and a good way to begin chart reading is by making runs in water with which you are familiar and comparing the chart with the known channels and landmarks. One word about laying courses—don't cut corners. The old sea saying is, "Better a mile too far than a fathom too near."

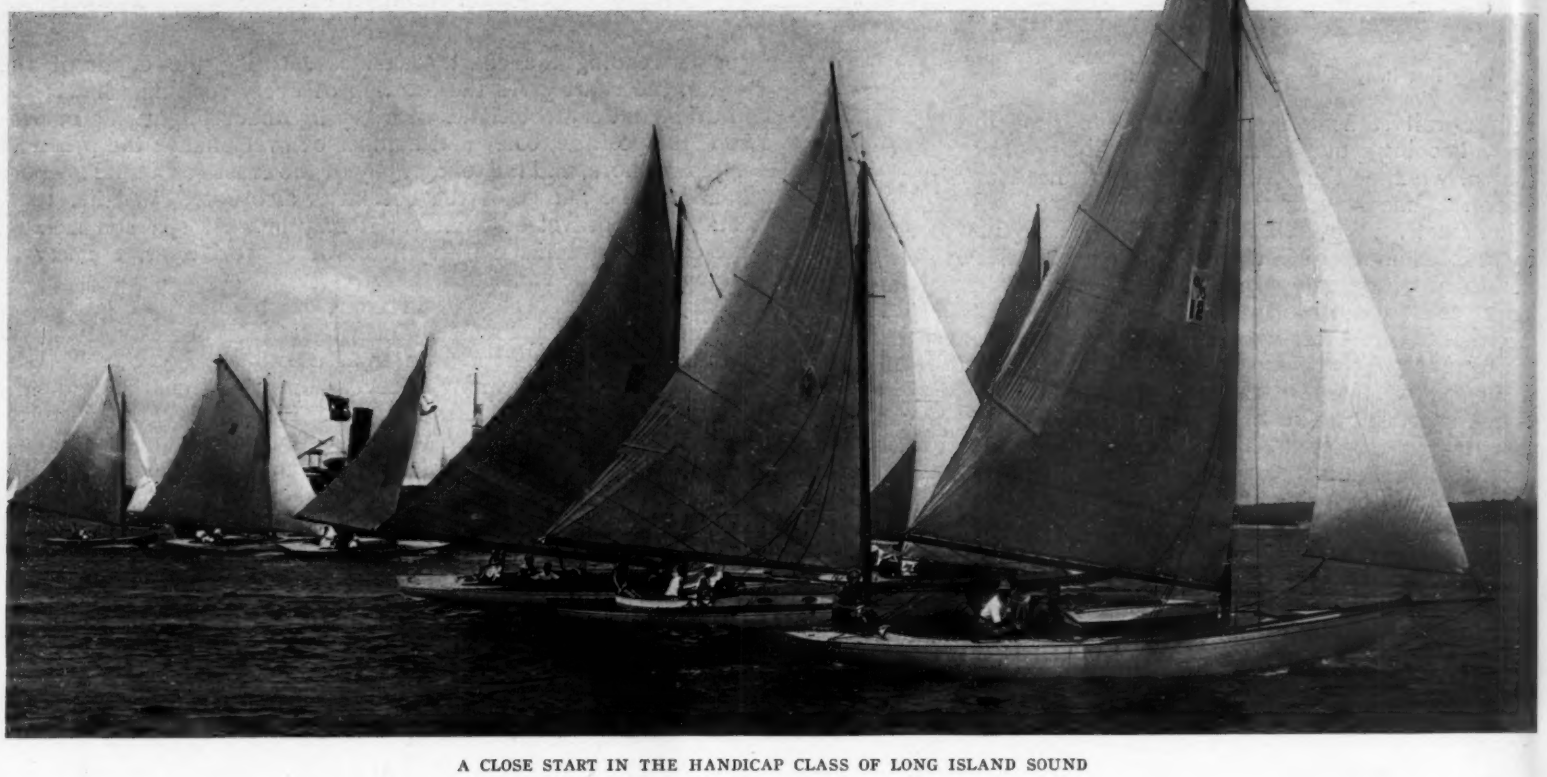
The amateur skipper should become acquainted with the buoy system of this country, which is a simple one and easily learned. Channels are marked by buoys of different colors; in entering a harbor red buoys, with even numbers, must be left to starboard, and black buoys, with odd numbers, to port. This can be remembered by matching the color of the port side light and the red buoys *leaving* a harbor. In some cases, such as in the East River, connecting New York Bay and Long Island Sound, there will be a change in the system at one point, as the Sound is buoyed with red buoys along the northern shore and black buoys to the southward, while the East River is part of New York Bay, in which the red buoys are on the Long Island side. There is sometimes a chance of mistaking one of the Sound buoys for a harbor buoy marking the entrance to some haven along shore, but if the number be noted this will determine the case. In important harbors port side of the principal channel is marked with black can buoys, the visible parts of which are cylindrical, and the starboard side by red nun buoys, which show truncated cones above water, port and starboard being taken for a vessel entering from seaward. Subsidiary channels are marked by spar buoys of different sizes. The largest spars are built up of steel plates and the smaller ones are of wood. It is well to use the glasses in picking up distant buoys, for often a red spar will appear black against the afternoon sun.

Dangers in mid-channel are shown by buoys with red and black horizontal stripes. These should not be approached close to, but be given a wide berth. Fairway buoys have black and white stripes and indicate that they must be passed aboard close to avoid danger. As before, in important positions these are nun and can buoys, while spars indicate the less frequented channels. White buoys are occasionally met, serving to limit the anchorage ground of a harbor, or other special purposes Outlying reefs and shoals are often marked by gas buoys, which give a steady or flashing light, bell buoys or whistling buoys sounded by the action of the waves, or combination gas or whistling buoys, which give a sound signal at regular intervals. Besides being shown on the chart, these are also described with their characteristics, position and appearance in the Light Lists and Buoy Books, published by the Department of Commerce.

In channels with extremely swift currents, like Hell Gate and Woods Hole, the buoys are frequently run under in the strength of the tide. I have been through Woods Hole at half tide and seen only the buoys at the entrance, the others all being below the surface, showing only the disturbance in the water above them to mark their position.

The Handicap Yacht Racing Class of Long Island Sound

An Organization That Provides the Best of Racing for its Members. The Method by Which the Boats are Handicapped



A CLOSE START IN THE HANDICAP CLASS OF LONG ISLAND SOUND

THAT yacht racing has increased wonderfully in popularity in the last few years is evident in the record-breaking fleets that gathered for the regattas of the principal racing clubs at the large yachting centers of the Atlantic Coast, and also, to a somewhat lesser extent, on the Great Lakes and Pacific Coast.

Many yachtsmen find in racing the keenest enjoyment to be had from their boats, and even hardened shellbacks of cruising yachtsmen, once they have tasted the zest and enjoyment of a keen, hard-fought race, find it hard to keep out of a "scrap" of a Saturday afternoon if they figure that their boat has any chance to win.

The vital requirement in any yacht racing is to find some equitable rule that will, theoretically at least, place the boats on an equal basis. As everyone knows, the larger the boat the greater her speed (other things being equal), and the whole aim of measurement rules is to overcome this difference, and, as far as possible, find a system of handicapping that will give the smaller boat an equal show against a larger one. The present measurement rule in use in this country strives to do this as far as possible, and takes into consideration the three factors of a boat that enter into her speed—length, sail area (driving power), and displacement.

When a boat's rating, or measurement, is obtained from these three factors, the larger boat allows the smaller a certain number of seconds *per mile sailed,* according to a fixed (but theoretical) time allowance table.

Now, no system of measurement has been yet devised that gives absolute satisfaction; and while our present rule is a good one as far as it goes, there are certain clauses in it that work against the older boats, or against boats built under the rule that was in force prior to the adoption of the present one. The result of this is that after a boat has raced in an open class for a year or two at a fixed rating, she will be outbuilt by some new boat, and with her rating unchanged will have no show of winning. Naturally, a successful boat in any class will discourage the owners of the older boats, who get tired of being beaten and either quit the game or, if they have the means, build a new boat to try to win back their lost laurels. This leaves a lot of good boats on the market whose racing days are not by any means over, yet which have no show in the regular classes against the newer creations. It is to take care of such boats as these, and to provide a more equitable means of handicapping for boats of different types and sizes, that the Handicap Class was formed on Long Island Sound in 1906.

There is nothing abstruse or complex in the method of handicapping under the system in use by the Class. In its essence it consists of rating a boat on its *actual speed* as determined by her past performances, rather than on a measurement rule based on her dimensions and sail area. This can be done in various ways, and, of course, the handicap allowance that she gets under this system is not a fixed one, as in the case of the measurement rule, but varies as the boat's speed in her previous races varies, depending on the weather conditions, how she is handled, and the like. The method at present in use by the Handicap Class of Long Island Sound is the result of eight years of experience and has been found in actual practice to give very satisfactory results. So equitable has it proved that the corrected times at the finish of a race are as close, if not closer, than is usually found in the open classes.

The system consists of handicapping a boat on the basis of her *actual average speed* in the last four races in which she has participated. For the sake of clearness, let us take for example a boat that is racing regularly in the Class, where the time she has made in the last four races is already known. Add these times together and divide by four to obtain the average. If this is done likewise with all the boats she is racing against, it will be seen that the boat that has made the fastest average time in the last four races will be, naturally, scratch boat in the next race, and all the other boats will receive as a handicap from her a certain percentage of this fastest elapsed time according to their relative performances in the last four races with the scratch boat.

Thus, if the figures show that the fastest boat had sailed over the course in the last four races in the average time of three hours

TWO DIVISIONS OF THE HANDICAP CLASS APPROACHING THE FINISH LINE AT LARCHMONT. THE BOATS ARE UNUSUALLY WELL BUNCHED FOR A FINISH

(180 minutes) and the next fastest boat had averaged 189 minutes, then the percentage of her own time by which the first boat had won was five, and in the subsequent race this boat would have to allow the other boat 5 per cent of the fastest elapsed time in the succeeding race. If still another boat took 198 minutes to sail over the same course she would naturally receive 10 per cent from the fastest boat, and so on. It is purely a matter of bookkeeping, and as such must be mathematically accurate.

There is this difference, however, in handicapping by this method and by the regular measurement rule. In the latter the time allowance is a *fixed quantity* for a certain distance, whether the race is sailed in fast or slow time, while under the handicapping system, though the *percentage* does not change the *number of minutes* of the handicap varies according to the length of time taken to sail the race. For instance, if the race is sailed in three hours and a boat got 5 per cent from the scratch boat, her allowance in that race would be 9 minutes. If the race took 4 hours to sail, her handicap would be 12 minutes, and the slower the race the greater (in time) the handicap; which is as it should be, for naturally in a slow race a boat should get a greater handicap from a faster boat than in a race sailed in very fast time. In this way the handicap rule seems more equitable than the measurement rule.

In figuring handicaps for all subsequent races it must be borne in mind that the *last* four races are the only ones taken into account, and that after each race the oldest race is discarded, and the one just sailed is used instead in figuring percentages for the following one. Therefore, a boat's handicap or percentage automatically changes with each race that is sailed throughout the season; but with an efficient handicapper on the job who will do the "bookkeeping," handicaps are figured and percentages for the subsequent race are sent out to every owner at least three days before the following race, so that one not only knows his own handicap when he starts that race, but the handicap of each one of his competitors, and knows just how he stands with the other boats.

If this is clear, the boat owner can see how, theoretically, every boat has an equal chance to win on this basis, Of course several qualifying rules have to be made for the proper operation of the Class. One of these rules is that no boat shall receive over 10 per cent handicap from another boat, as it was found that widely varying handicaps were a detriment to good racing. To take care of this, the boats of the Class were divided into different groups, or divisions, and any boat that was over 10 per cent slow for one division was placed in the next lower division. In this way the percentages of the various boats in a division were kept fairly close together. Also a rule was made that in figuring handicaps every race is discarded in which the winning boat does not average 3 miles an hour in the race, as it is obvious that a speed of less than this is not a true estimate of a boat's ability and is not as valuable for handicapping as a race sailed in faster time.

Again in the Handicap Class types of boats are taken into consideration. As an example, a racing machine is not, as a rule, found in a division with cruising boats. A special division has been formed for the Raceabout Class, and this year there is talk of a special division for yawl-rigged boats, which naturally do not belong in a class with fast sloops. Other rules such as these have been formulated as the need for them has arisen, until the system of handicapping is down to a distinctly workable and satisfactory basis, where it gives owners the very keenest of scrapping and just as good racing as in the open class or classes where a fixed handicap is allowed. Of course in the case of a new boat coming into the class on which no previous data is available, an arbitrary handicap has to be awarded her, but with each succeeding race of the first four this more nearly approaches the *actual* "past performance" figures.

It has been said that one of the drawbacks to this form of racing is that when a man sees that he cannot win a race he can deliberately kill his boat in order to raise her handicap, and while to a very limited extent this could be done undetected, the records of the Class show that such tactics have been resorted to but very little. The boats that have done the best in the Class and won championships are those that have raced in every event for all that there was in them, and, if they couldn't win, tried just as hard for second or third place.

Some forty odd boats have raced in the Class in the last two years. To show how evenly they have done, in the first division last year one boat won eight first prizes, another six, another five, while every boat in the division won a first prize, except one, and she only raced five times, and got two seconds and two thirds. In the second division two boats won six firsts each, while of the entire fleet in the Class only five boats did not win a first prize.

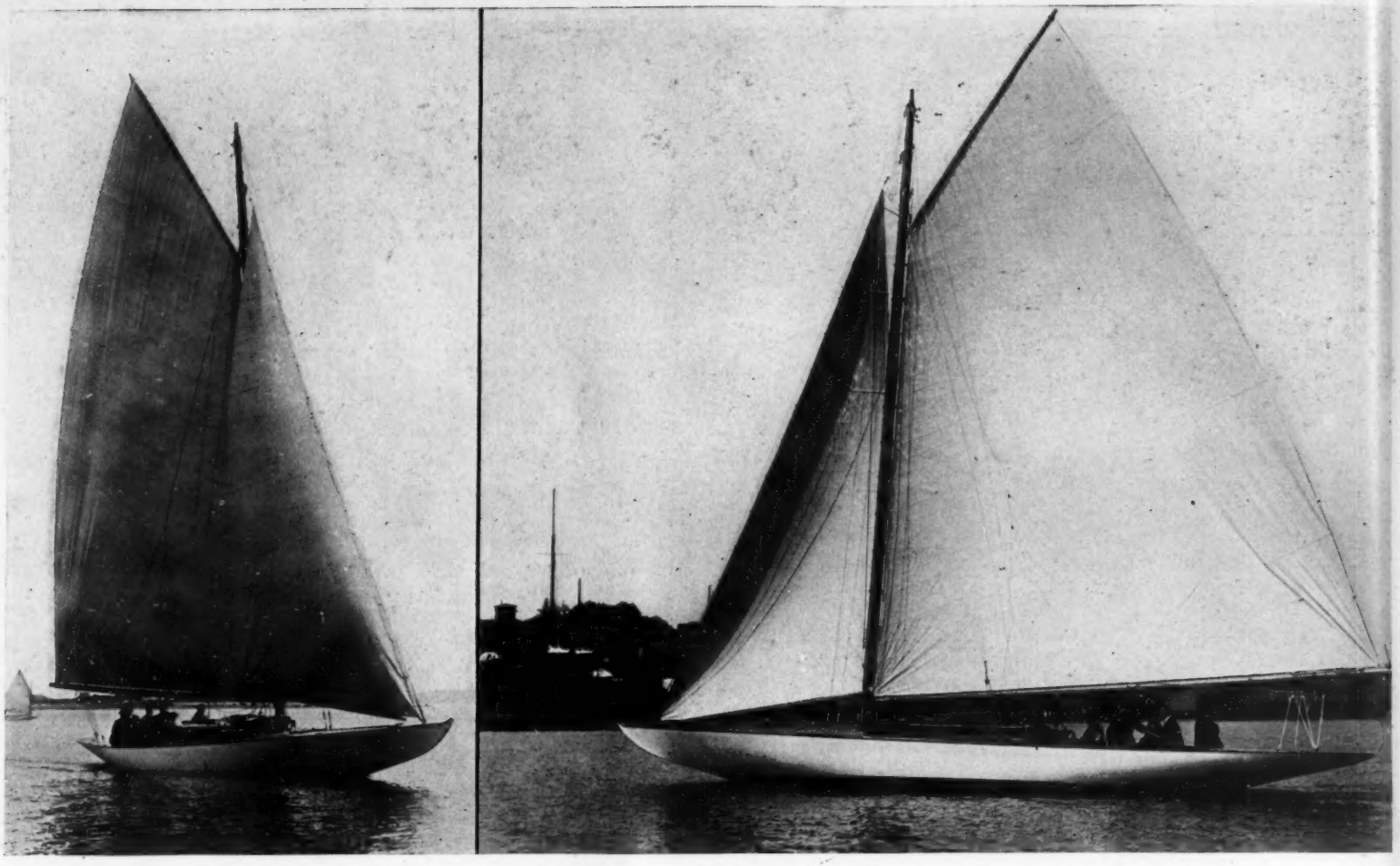
Membership of the Class consists of a small fee to insure proper handicapping by a paid official, which has been found necessary, and to pay the expenses of one regatta a year run by the Handicap Class, and only eligible to its boats.

THE MONACO EXPOSITION AND REGATTA

THE 1914 Exposition and Regatta of Power Boats at Monaco proved highly successful, so far as the sport went. A number of new speed records for the course were made, and in the mile trials excellent time was made, though as a whole the races were not particularly interesting to Americans, as there were no American-built or engined boats entered. The boats themselves did not show much in the way of novelty, if we except the "gliders," as they are called, or boats with aerial propellers, of which there were a number seen at the meetings.

The best times made over the course for any distance races were by Minnehaha III, which covered 27 nautical miles in 42 minutes and 3 2/5 seconds., or at the rate of 38½ knots, or 44.40 miles per hour; and by Sigma-Despujols in the Prix de Monaco, which covered 27 nautical miles in 38 minutes 38 2/5 seconds, which figures 41.9 knots or 48.30 miles per hour.

On the measured mile on which trials were held every day the best time made was by Sigma-Despujols, which made a mile with a flying start in 1 minute 7 4/5 seconds, or at the rate of 52.96 knots per hour. Another boat, V-Despujols, did 52.174 knots in the mile trials. The accuracy of the course, however, has been somewhat questioned, owing to the difficulty of setting marks.



VALIANT, THE NEW GARDNER-DESIGNED CLASS P BOAT FOR THE CHICAGO YACHT CLUB

The Chicago Yacht Club's New Class P Boat

THE new Class P boat Valiant, designed by William Gardner for a syndicate of Chicago Yacht Club yachtsmen, headed by Fred. A. Price, and built for the purpose of going after the Yacht Racing Union Cup won by the Royal Canadian Yacht Club in 1912, was launched at Wood's Yard, City Island, on May 13. The Valiant, as the new craft is called, is a fine looking boat, big and powerful in spite of her graceful lines. She is a "whale of a boat," to use the vernacular—one of the largest that has yet been turned out for the class. She had several trial spins on the 15th, 16th and 17th, and on the 18th was hauled out and prepared for her trip to Chicago.

A series of elimination races will be held on Lake Michigan during June and July, to choose the challenger to go to Toronto after the cup. There are already owned at Chicago the Michicago, South Shore, Olympian and the Mavourneen, and, though the latter is outclassed, there should be fine racing with this fleet during those months. For the defense of the cup the Canadians are building on Lake Ontario a new boat to this class from designs by Owen.

The Yacht Racing Union Cup Series will be held off Toronto, beginning August 15.

Apropos of this new boat, it will be remembered that considerable talk has been floating around yachting centers during the winter regarding a challenge made by Addison Hanan, owner of the Josephine, to race the new boat for a sum of money. The facts of the matter, as far as we can learn them, appear to be that Mr. Hanan wrote to Mr. Price of the Chicago Yacht Club stating that he had heard that he was having a new boat built, and that William Gardner, the designer, had guaranteed that this new boat would beat the Josephine. If this was so he, Hanan, challenged Price to a match race against this new boat for $500, to be sailed on the Sound before the new boat went west. He wanted a speedy reply, as in case the challenge was accepted he would put his boat in commission early; otherwise she would not go overboard until about July 1, as there were no other P boats left at the western end of the Sound to race against.

Upon receipt of the challenge several members of the Chicago Yacht Club, who were interested in the new boat, talked it over and replied to Mr. Hanan somewhat in this vein:

They begged to acknowledge receipt of the challenge which they would like to accept, but inasmuch as their new boat (Valiant) had been built for one particular purpose, i. e., the race for the Yacht Racing Union Cup at Toronto, they did not feel that they could undertake any engagement that might in any way mitigate against her being chosen for this one event. As elimination races for this contest began May 30, and the new boat would not be ready until early in May, she would have to leave almost immediately for Chicago in order to be there on time; and they did not deem it fair either to their yacht or those that handled her to ask a boat just out of the shop, and not tuned up, or in proper trim, to sail against a boat that had had a year's preparation, and with which her skipper was more familiar than the new owners were with their boat. Besides which they felt that it was hardly fair to ask their men to sail in tide waters with which they were not familiar. They would, however, like to accept Mr. Hanan's challenge and proposed that as soon as the international series at Toronto was over, subsequent to August 15, that they arrange a series with Josephine to be sailed on neutral waters.

They suggested, further, that the meeting take place on Lake Erie, off Buffalo, which would be fair to both parties, and where there were no tidal conditions to bother. They pointed out that Buffalo was some 150 miles nearer New York than it was Chicago, and that a first class course could be had off that port.

To this proposition the pith of Mr. Hanan's reply was that he did not care about racing on fresh water. The proposition seems a fair one, and if Mr. Hanan was desirous of testing the *real* merits of the two boats under conditions that were equitable, we are surprised that he did not accept it; especially as there will not be many Class P boats on Long Island Sound next summer capable of giving Josephine a race.

MESS ROOM TALK

IN this Department we will answer questions concerning the problems which boat owners are constantly running up against in the operation of their motors or the handling of their boats. Theoretical as well as practical questions will be answered promptly by mail, and when of sufficient interest will be printed for the benefit of YACHTING readers. This service is free. Don't hesitate to make use of it. Address, Information Department, YACHTING, 141 W. 36th St., New York City.

Concerning Engine Speeds and Propellers

RIVERTON, N. J.

Enclosed you will find a few questions to which I have been unable to get satisfactory answers:

(1) Can a single-cylinder, 5-horsepower, two-cycle motor be run as slowly without load as it can be under load? If there is a difference, is it very great?

(2) If the above motor was fitted with a common two-bladed reversible propeller, and you slowed it down as slow as it would run, then reduced the pitch of your blades, would your boat run slower, or would your motor speed up in proportion as you reduced the pitch of your blades? If it did speed up could you throttle down still more so as to reduce the engine to same speed as when working under full load, throttled to the limit?

(3) Will you please tell me the comparative advantages and disadvantages of the different styles of reversible propellers—the two-bladed, three-bladed and four-bladed—arranged in two pair of blades running parallel in the same hub? Is the latter wheel as economical in fuel as the two former, and, if not, why not?

(4) Has any one of them any advantage of the others in respect to not making much disturbance in the water while running, which would be an advantage in trolling for some varieties of cautious fish? W. S. P.

Answering your questions in the order asked:

(1) The single-cylinder, two-cycle motor of the heavy-duty type can be slowed down to between 200 and 300 revolutions per minute without load. With the load on it can be run a little slower, but not very much. The higher speed two-cycle motors do not throttle down to as few revolutions as the slow-speed motors.

(2) Both would happen. Your engine would run faster and your boat would run slower. You could, however, throttle down still more and reduce the engine to the same speed as when working under full load, but throttled down.

(3) For small boats, where there is a free run, allowing the water to get to the propeller, or boats without any deadwood, two-bladed wheels are generally satisfactory. Three-bladed wheels give less vibration, but work more satisfactorily when the boat has deadwood. Four-bladed wheels are very seldom used, except in large boats of the towing type, tugs, etc., where there is a large amount of power at very low revolutions, the four blades being used simply to get a large amount of blade area. This would apply to reversible propellers as well as solid wheels, though, as a rule, reversible propellers are not made in the four-bladed type. The reversible propeller with two pairs of blades on the hub is merely a special type of propeller for keeping an even load on the engine at all times, the blades turning at different angles as they are reversed.

(4) We do not think there would be any difference in the disturbance of the water when using either a two-bladed or a three-bladed propeller. There would be, however, more vibration when using a two-bladed wheel.

Power to Move a Houseboat

SAN ANTONIO, TEX.

A club of which I am a member is building a houseboat, whose dimensions are as follows: 36 feet long, 16 feet wide and 36 inches depth of hull. We wish to buy a motor boat to move this houseboat from place to place upon an inland lake. Now we don't want to throw any money away on excess power. Can you give us an idea of what would be the smallest engine it would be safe for us to buy for the purpose mentioned?

F. H. W.

The houseboat you mention is not a large one, and if you only want enough power to move it from place to place at a slow rate of speed, say three or four miles an hour, you would not need a large engine.

I should think a motor boat with an engine from 10 horsepower up would be large enough, especially if the boat is to be towed in sheltered waters, where she will not be bothered by wind or sea. Either a two or four-cycle engine would answer. The former are somewhat cheaper and simpler than the latter, though they usually burn a little more fuel.

Comparison of Power Boat Types

NEW YORK CITY.

Will you kindly give me your opinion as to which type of boat would be best suited for cruising on Long Island Sound and waters around New York, taking into consideration seaworthiness, dry going and low cost of operation, as the principal points in making a choice between a dory, V-bottom and a converted cat or sloop drawing 2½ feet and about 10 feet beam, all about 25 feet over all and having cabin accommodations?

In a dory or a V-bottom would you prefer a hunting cabin to a raised-deck cabin? Do either of these types pound in a sea? Any help you may give me in making the comparisons will be appreciated.

J. J. T.

In regard to the three types of power boats you mention—dory, V-bottom and converted sailboat—I think you would get the best all-around results in a boat of that size with a V-bottom type. The V-bottom type, properly designed, is an excellent sea boat, and with a boat of that length you could get fair sleeping accommodations for two. In a dory you could get a good model boat of this size, but the cabin room would not be quite so good as in the other types. While a dory is a good sea boat the bottom is flat, and in a steep sea she would probably slap some. The V-bottom boat, if properly designed, would never pound, and would probably be a drier boat than the dory.

As far as a converted cat or sloop went, you would probably get more room in a boat of this size than in either of the other types, but the boat would be wide, would be hard to drive, and you could not get the speed that you could with the others. In a boat of the size you mention a raised deck on a V-bottom type would give you more cabin room.

Regarding Stockless Anchors

CHICAGO.

Do you consider the modern stockless anchor as good a holding anchor as the old-style kedge? Thanking you for this information.

J. F. M., JR.

In certain kinds of bottom and under certain conditions the modern stockless anchor will hold as well as the kedge. For general all-around use in a small boat, where anchorage is had on all kinds of bottoms, I personally prefer a kedge, as, with plenty of scope to the cable, I think a kedge will hang on better in a hard blow.

Stockless anchors are in almost universal use on large boats at the present time, and give good satisfaction. They are easy to handle, as there is no "catting" to be done, and another advantage is that the cable does not foul as it is apt to do on the stock of the kedge. For all-around use on a boat it would be well to have two anchors—one, a stockless, for ordinary use, and, in addition, a good kedge anchor for a heavy or storm hook.

Sail Hoist for Mast

WINDSOR, N. S.

Would it be too much to ask you to give me an opinion of the sail hoist as shown in cut in Laughlin's catalogue, Portland, Me.? If you haven't their catalogue this hoist is practically the same, as far as I can judge, as the sail hoists sold by other dealers. Would like very much to know whether these are used generally, as I am about ordering one (No. 3 size) for my boat. G. H. S.

I have not Laughlin's catalogue at hand, but from those of the other marine hardware dealers I presume that the sail hoist you mention is the same as the ordinary sail slide and hoist that these others sell.

Patent sail hoists, consisting of a track along after side of mast and brass hanks sliding along it, are used frequently in New England and New York waters in place of mast hoops. They usually give satisfaction, and keep the luff of the sail more tightly against the mast than the old mast hoops. In addition to which they do not break as a hoop will. Their principal drawbacks are that they sometimes stick when hoisting or lowering sail, especially if not kept well greased, and the mast has to be bored for the fastenings of the track.

EDITORIAL

For Control of International Racing

At a recent meeting of the executive committee of the American Power Boat Association initial steps were taken to secure official representation for this association in the Harmsworth and all other internationl trophy races. Owing to the unsatisfactory state of affairs which has prevailed in these races the last two years, it would seem that if this change could be brought about it would be in the interest of better sport and more national representation than has been the case in the past.

The control of the British International Trophy races in this country rests with the Motor Boat Club of America, a sort of sub-organization of the Automobile Club of America. The Motor Boat Club of America, despite its name, has never been a club of national prominence. It has a very small and close membership, has no clubhouse of its own, no fleet, and is not in any way connected with motor boat racing in this country, while its prestige has not proved sufficient to command the respect of motor boat racing men. This year they had even delegated in part the holding of the elimination races to pick a team to go to England to another organization. To use the words of the President of the A. P. B. A., in his report to the members of that organization: "If these International events are to obtain the dignity they are clearly entitled to, and if the country is to be properly and worthily represented with the best it is capable of sending to these events, then nothing short of official representation by the authoritative association of the country will do. It is useless to try to conduct International events supposed to represent the country at home or abroad by a handful of individuals who are under no official obligations to anyone. It is especially antagonistic to the best interests of motor boat racing to have this small group of men pass this authority to a still smaller group by the artificial arrangement of interlocking offices, because the first group are unwilling or unable to handle the situation, which in their hands has steadily weakened and become entirely unrepresentative. All such authority is detrimental to the conduct of important events, and distinctly subservient to the national dignity of the sport. The American Power Boat Association realizes that it must act in this matter with decision, and has therefore opened negotiations direct with the donors of the trophies and duly impressed the fact upon them."

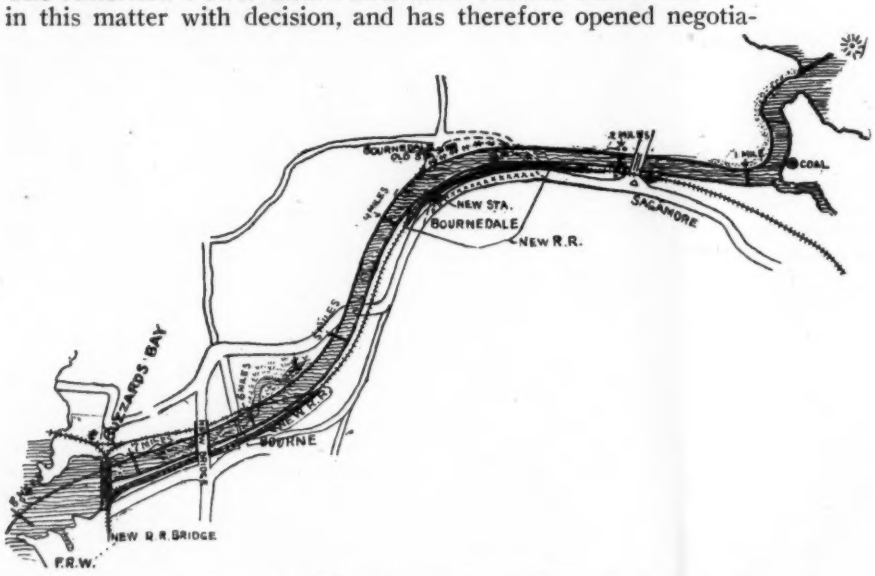
Inasmuch as the A. P. B. A. is the only power boat organization of national prominence in the country, having a membership of over 150 clubs, and, as most of the racing is held under its rules and auspices, it seems as though it were qualified to and should have charge of the American end of any International motor boat racing.

A New Hand on the Quarter Deck

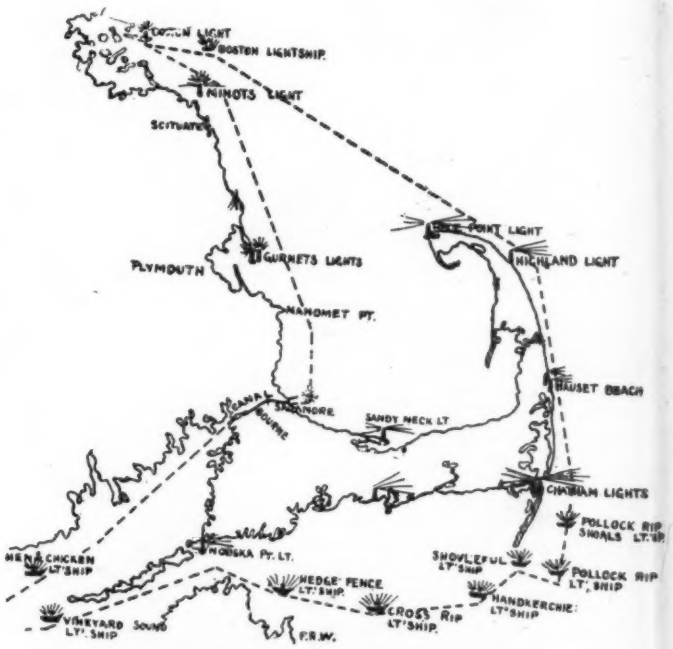
There is always a feeling of satisfaction in getting a good man on the crew, especially when that man is to be one of the watch officers. Therefore, we take pleasure in announcing that Mr. Charles H. Hall has "signed on" as one of our quarter deck gang. For several years Mr. Hall has been a contributor to YACHTING, and his articles and stories are well known to YACHTING readers. He has had a wide experience in handling and navigating all classes of vessels, as well as in yacht designing and building, and brings to the subjects on which he writes a first-hand knowledge, which is essential if a man is to write intelligently and helpfully. Our readers can look forward with satisfaction to seeing more of his work than they have in the past.

Opening of the Cape Cod Canal

It really looks as if the Cape Cod Canal were to be opened this summer in time for boat owners to make some use of it before the season closes. The last of July is the date announced, and the event will be celebrated by suitable activities at the head of Buzzard's Bay. The United States power squadron is contemplating a cruise to the Canal for the opening, while the Narragansett Bay yachtsmen will also take part in the celebration as well.



THE CAPE COD CANAL IS BETWEEN 7 AND 8 MILES IN LENGTH



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Driftwood from Alongshore

Buffalo Regatta Date

Past-Commodore William J. Gunnell, of the Buffalo Motor Boat Club, chairman of the regatta committee, announces that the Buffalo Regatta will be held on the Niagara River, off the club house of the Motor Boat Club, on September 2, 3 and 4. At least three handsome trophies will be raced for, one, the Blackton trophy, presented last year by Commodore J. Stuart Blackton, and won by Haida Papoose II. Another is the cup again donated by the Buffalo Chamber of Commerce for a 30-mile race, won last year by Baby Reliance. A third trophy has been promised by one of the best-known motor boatmen in the United States. As usual three races will be held at this regatta, one on each day, and several entries have already been promised.

At a recent meeting of the board of directors of the Motor Boat Club of Buffalo the following officers were elected for the coming season: Commodore, William J. Conners, to succeed himself; vice-commodore, Harold J. Kelly, to succeed himself; W. B. Weinig to be fleet captain, Past Commodore W. J. Gunnell to be chairman of the regatta committee.

Astoria Regatta

The nineteenth annual regatta will be held under the auspices of the Astoria Motor Boat Club at Astoria, Ore., July 2, 3, 4. Application has been made to the Pacific International Power Boat Association for the Pacific Coast championship free-for-all race to be held here at that time.

The officers of the Astoria Motor Boat Club for the ensuing year are: Commodore, C. H. Haddix; vice-commodore, James A. Stickler; rear-commodore, Frank Porter; secretary, Floyd Foster; treasurer, Herman F. Prael; fleet captain, E. M. Masterson; fleet surgeon, Dr. J. A. Tuttle.

Morrisania Yacht Club

The Morrisania Yacht Club, which for many years has been located on South Brother Island, just above Hell Gate, in the East River, recently abandoned its old quarters in favor of a location on the mainland. For many years the club has desired to secure a location on the mainland, but has not wanted to make the move until it could find a place which suited its requirements. Through the efforts of its commodore the club has been fortunate enough to secure a home that will be one of the most attractive in the vicinity of New York.

The property which it has secured by a lease for a long term of years is the old Lorillard mansion and estate at Old Ferry Point, known to yachtsmen as Lorillard's Point, which is situated just above Clason Point, opposite Whitestone and College Point. The property includes several acres directly on the water, with a house of thirty rooms and outhouses that will make excellent locker-rooms and storage places for boats, gear and equipment. There is a fine anchorage off the property, and a dock will be built, giving the best of facilities for boating.

For the British International Cup

In anticipation of the forthcoming race for the British International Trophy, Commodore James A. Pugh, of Chicago, writes that he is building a speed boat 39 feet 6 inches long, 7 feet 8 inches beam, to be powered with two twelve-cylinder Deusenberg motors, 6¾ inches x 7½ inches, designed to run at 1,400-1,800 revolutions per minute. To be prepared for emergencies he is having built three complete engines with six extra cylinders and parts. It looks as if the Commodore ment business this year. The dates fixed for the running of the International Trophy Race on Osborne Bay, Isle of Wight, this year are August 12, 13, 14 and the 15th, if necessary.

Plans for Motor Boat Carnival

There is talk of the Annual Motor Boat Carnival, under the auspices of the National Association of Engine & Boat Manufacturers, being held at Manhasset Bay this year the latter part of August. Manhasset Bay will furnish an ideal motor boat course—the speed races being held inside the bay, the cruising races on the Sound.

The Gold Challenge Cup Race will be held at Lake George the first week of August as usual.

Schedule of Genesee Dinghy Club

The schedule of races of the Genesee Dinghy Club, Rochester, N. Y., is as follows: May 30, June 7, 14, 21, 28, July 4, 12, 18, 26, August 1, 9, 15, 23, 29 and 30. All postponed races to be run off September 6 and 7. The point system will be used, allowing one point each for start, finish and for each boat beaten. There will also be a cruising race to Manitou and back for a cup presented by B. K. Sheldon and F. H. Low.

Motor Boat Equipment for New York State Waters

Under the terms of the Brereton bill, signed by Governor Glynn on April 7, all craft propelled by machinery and navigating waters not under Federal jurisdiction, must be equipped with safety devices, signals and lights in practically the same manner as are vessels subject to the United States Steamboat Inspection Service. This bill will affect all craft on the State canals and on the landlocked lakes.

The Block Island Races

The eleventh annual Block Island race of sailboats, under the auspices of the New York Athletic Club, will be started June 27 at 11 A. M. For many reasons this is the most popular long-distance race on the Atlantic coast, and always brings out a good fleet for the 100 nautical mile run to Block Island. It is open to decked or cabin yachts in cruising trim between 20 and 35 feet waterline length, and time allowance is based on measurement of over-all length. The time allowance is 10 minutes per over-all foot for the course, while yawls and auxiliaries will receive 5 per cent additional. Entries close June 23, and entry blanks may be had from H. A. Jackson, Jr., chairman of the regatta committee, 20 East Fifty-eighth Street, New York, or will be supplied upon request by YACHTING.

The power boat race to Block Island for the Day Trophy, and also the second annual race for the Lipton Viking Trophy, will be started a week before the sailboat race, or Saturday, June 20, at 5 P. M. This race is open to cruisers enrolled in any recognized yacht club, not less than 25 or more than 40 feet over-all length. Time allowance is under the A. P. B. A. 1914 rules. The Viking Trophy is for those boats whose crews are composed entirely of amateurs with no professionals on board, and is under a special rating rule.

New York to Albany Race

The sixth annual race, New York to Albany and return, will be held June 27, starting from the New York Motor Boat Club, 147th Street and Hudson River, New York, at 8 A. M. The boats will be divided into three classes: (A) cruisers, (B) open boats and (C) Viking boats, and no boat will be eligible that is over 40 feet in over-all length.

Some Recent Yacht Sales

The following sales and charters of yachts are reported through the office of Stanley M. Seaman, of New York City:

The 103-foot houseboat Captiva, chartered for Mr. Payne Whitney, N. Y. Y. C., to Mr. Roy A. Rainey, N. Y. Y. C.; the 93-foot steam yacht Augusta, sold for the Herreshoff Manufacturing Company, to Mr. H. W. Davis, of Brooklyn; the 71-foot twin-screw power yacht Granada II, sold for Mr. M. Hermann Brill, of Philadelphia, to Mr. F. E. Lewis II, Saugatuck, Conn.; the 57-foot launch Kosagaas I, sold to Harry F. Stoffregen, of Brooklyn; the 42-foot cruiser Uonda, for Mr. F. E. Lewis II, to Mr. Edmund Eckart, New Rochelle, N. Y.; the 40-foot cruiser Elizabeth, sold for Mr. C. E. Hoffman, New Brunswick, N. J., to Mr. D. W. Tait, Philadelphia; the 40-foot cruiser Pauline, sold for Charles H. Sherborne, Philadelphia, to John K. Davis, Newark, N. J.; the 50-foot houseboat Ruby K., sold for Mr. F. J. Rawlings to Mr. W. H. Yule, New Rochelle, N. Y.; the 36-foot sloop Sybilla, sold for Mr. Joseph Z. Zwack, of Chicago, to Mr. R. W. K. Pollock, of Lima, Peru. The boat has been shipped to her destination.

United States Power Squadron News

Members of the local Power Squadrons of the Boston Yacht Club, and of the Portland Yacht Club, and of the Hudson River Power Squadron, are authorized to display on their boats the distinguishing flag of the United States Power Squadrons prescribed under Section 1 of Article XIII of the By-Laws, provided, however, that the secretaries of said local squadrons shall forthwith report to the chief commander a list of those members in good standing who hold proper certificates from a district Board of Instruction and Examination, or the local examining boards of said local squadrons prior to the formation of the district boards. And, further, that the display of said distinguishing flag is restricted only to said members in good standing.

Chicago Yacht Club Racing Schedule

The Chicago Yacht Club has determined upon the principal races for the season as follows:

June 26, 27 and 28—Triangular cruising race to St. Joe, Michigan City and Chicago.

July 11—Marigold trophy and Class "P" races.

July 25—Lipton trophy race.

August 1—Start of Mackinac cruising race.

August 15—International race for Class "P" boats between the Chicago Yacht Club and the Royal Canadian Yacht Club at Toronto, under the auspices of the Royal Canadian Yacht Club.

In addition to the foregoing, on each Saturday afternoon throughout the season races will be held for the new "One-Design" boats, which were so successfully conducted last year. First, second and third prizes will be awarded each Saturday, and first, second and third prizes will be awarded for the season's average. Each Saturday afternoon up to August 1 there will also be held elimination races for Class "P" boats to select a challenger to represent the Chicago Yacht Club at Toronto. On July 18 there will be held an invitation race for all motor boat clubs of Chicago, under the auspices of the Chicago Yacht Club. There will also probably be an open regatta, held under the auspices of the Chicago Yacht Club for all the yacht clubs of Chicago, on a date to be announced later.

Long Island Sound Racing Schedule

The schedule of racing dates of the Long Island Sound Yacht Racing Association is:

May 30—Harlem Y. C. annual.

June 6—Knickerbocker Y. C. annual; 13, Larchmont Y. C. spring; 20, Manhasset Bay Y. C. annual; 26, Seawanhaka-Corinthian Y. C. special; 27, Seawanhaka-Corinthian Y. C. annual.

July 1—New Rochelle Y. C. spring; 2, Riverside Y. C. annual; 3, American Y. C. annual; 4, Larchmont Y. C. annual; 11 to 18, Larchmont Y. C. race week; 25, Indian Harbor Y. C. annual.

August 1—Horse Shoe Harbor Y. C. annual; 8, Huguenot Y. C. annual; 15, Stamford Y. C. annual, Orienta Y. C. annual, start of Stratford Shoal race; 22, New Rochelle Y. C. annual; 29, Seawanhaka Corinthian Y. C. fall regatta.

September 5—Indian Harbor Y. C. fall regatta; 7, Larchmont Y. C. fall regatta; 12, Port Washington Y. C. annual.

On account of the International Races beginning Sept. 10, and the necessity of the N. Y. Y. C. cruise, and Larchmont race week being a week earlier than usual, the schedule was upset somewhat.

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Of Interest to the Skipper

Some Interesting Facts About Cordage

We quote from a letter recently received from the Plymouth Cordage Company, of North Plymouth, Mass., makers of the well-known Plymouth yacht rope, which amplifies somewhat information given in a recent number of YACHTING on rope, in which the statement was made that when one buys Manila he must be sure to get what he pays for, and not Sisal, as Manila has a longer fiber of considerable strength and Sisal is distinguished by its lighter color and by a shorter and weaker fiber.

"It is quite true, as your writer has pointed out, that Sisal is distinguished by its lighter color and by a shorter and weaker fiber. It is also true that, relatively speaking, Manila is a longer fiber than Sisal, but there is a range of from six to twelve feet in the length of hanks or grades and marks of Manila fiber commonly found on the market, and from this it will be seen that all Manila is not necessarily long.

"In other qualities besides length—namely, strength, texture and color, these being the three others which a rope manufacturer considers—there is a great range among the different grades and marks of Manila hemp. The desire of some manufacturers to make more than a legitimate profit by cheapening either the price or the quality of their Manila rope leads them sometimes to use very poor grades of Manila or to adulterate the manila with poorer fibers. In other words, all Manila hemp is not good hemp judged by the standards of reputable manufacturers, nor is all 'so-called' Manila rope on the market pure Manila, or at all what it purports to be in quality.

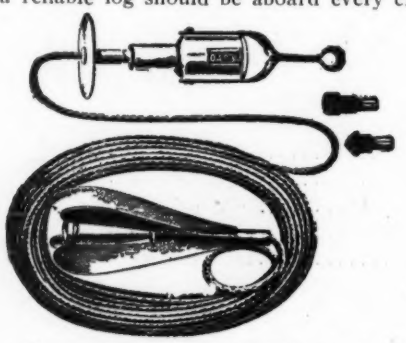
"Generally speaking, we believe that Sisal rope is pretty commonly recognized as being a poorer quality rope than Manila. This mixture of Manila with other fibers of other quality is, however, a matter not so thoroughly understood, and this, we believe, is the chief cause of so many buyers getting 'stung.' The distinction in the buyer's mind, therefore, must not be between Sisal and Manila rope alone, but also between good Manila rope and poor Manila rope.

"When a man buys Plymouth Manila, for example, he knows that he is buying a rope containing no other fiber but Manila, and made from carefully chosen marks and grades so blended as to preserve a uniform quality. If he does not know it, he is missing a good thing. It is very important, therefore, for a buyer not only to get a rope made from the right kind of fiber, but made by the right kind of manufacturer as well. Just as Manila rope costs more, but is more economical than Sisal rope, so pure Manila rope of high uniform quality costs more and is more economical than the second, third, fourth, hardware grades and other 'so-called' Manila ropes."

The Plymouth Cordage Company have recently gotten out a book entitled "Rope Hints for Boat Owners," that contains much valuable information concerning rope, ground tackle, running rigging, etc. It is beautifully illustrated with a number of modern vachts equipped with Plymouth rope.

For Telling the Speed of Your Boat

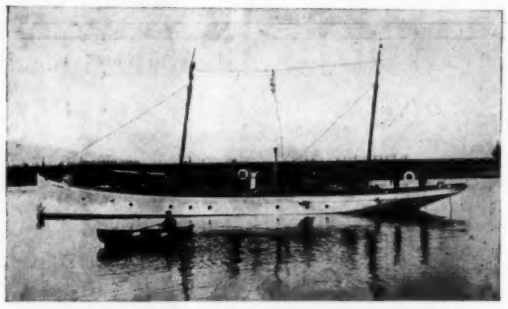
One of the most necessary factors in navigating a boat is to know accurately the speed at which you are going through the water; therefore a reliable log should be aboard every craft.



Durkee Combination Taffrail Log and Speed Indicator

Even on a power boat, where the rate of speed is known approximately by the engine revolutions, such causes as head winds, rough water, and the like have so much effect on a small boat's speed that a log is a necessity. One of the best logs in the market for the small boat is Durkee's Combination Taffrail Log and Speed Counter. While the ordinary log is not accurate at registering speeds of less than four knots an hour, the makers of the Durkee log say that it will register any speed, the propeller not being so heavy as to cause it to sink at low speeds. The log is registered to mark knots tenths, hundredths and thousandths. The instrument is made of brass, is non-magnetic, and will last well a lifetime with proper care. These logs may also be used as a speed counter to tell the revolutions the engine is making by removing the rotater or propeller and placing the point of the indicator lightly against the end of the engine shaft.

Other specialties made by Durkee are a galvanized iron fog horn, with wood mouth-piece and brass reed, an article that will stand the weather and the action of the salt water, and will be appreciated by those who in the past have gotten a mouthful of rust when attempting to use their tin horn, and had the blast end in a dismal squawk as the reed broke.



The Belgian motor yacht Oyouki II, powered with a 75 horsepower Wolverine motor

Thompson Feathering Propeller

Practically every auxiliary yacht owner to-day has heard of the Thompson feathering propeller, which is automatic in its action, the blades swinging into the go-ahead position when the motor is started, into the backing position when the engine is reversed, and automatically feathering when the engine is idle and the boat is under headway. While they are used to seeing these in small sizes, many are not aware that these wheels are in use on the largest fishing schooners, and a 56-inch wheel was made recently by the Noyes Machine Company.

This wheel would be quite a drag on any boat if it was a solid one, but with the blades turning to neutral when under sail drag is minimized.

Location of Boucher Manufacturing Company

The H. E. Boucher Manufacturing Company, the well-known manufacturers of yacht models, have just announced the removal from their old quarters at 20 Fulton street, where they have been for many years, to 150 Lafayette Street, New York City. This is near the Canal Street Subway station, and in the new premises they will manufacture marine and other models and special mechanical devices. The Boucher yacht models are known to practically every American yachtsman as being the very highest type of model, accurate and complete to the slightest detail.

"Safety First"

The motor boat enthusiast will present unanswerable arguments that there is no pleasure so healthful as the lure of the water. Against the motor car enthusiast he can say: "Give me the dustless right of way over river or sea, with its freedom from noise and closeness to nature in all her variant moods." His pride in his seamanship, his "chugger," "speedster," or "cabin" boat is justified, for no landlubber motorist, however high-powered or speedy his car, can defeat the motor boat owner's arguments.

If anyone says: "Ah, but automobiling is safer. Suppose, for instance, you had a fire while miles from shore? What would happen then?" The up-to-date motor boat man can now reply to that remark with emphasis. He can take his land-loving friend down to the dock and show him, neatly stowed in a convenient corner, the last word in man's scientific mastery of fire.

"Do you see that?" "Yes,. What is it?"

"Why, a Pyrene Fire Extinguisher that will instantly smother any blaze that could possibly happen aboard my boat. Neat, isn't it? Safety first on sea as well as land, old man."

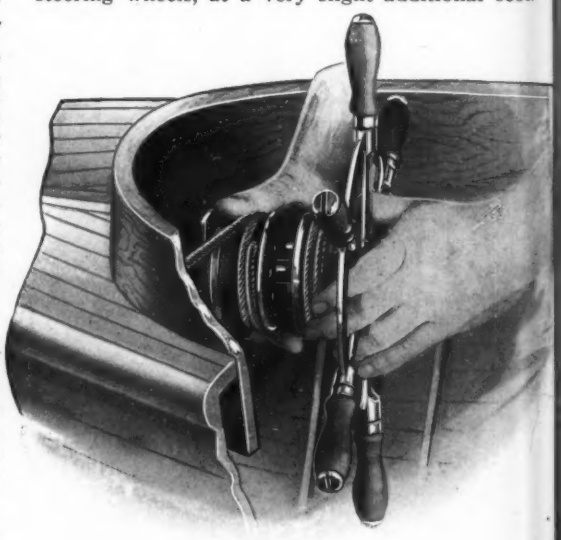
A Quick-Drying Varnish with Lasting Qualities

In a recent issue of YACHTING the statement was made that in the spring of the year it is best to use a slow-drying varnish for the reason that, as a general thing, a slow-drying varnish was somewhat more durable than a quick-drying one. While this is true in regard to most varnishes, the oil in the varnish making for durability, Valentine & Company, makers of the well-known Valspar varnishes, write as follows regarding their varnish and its durability, even though it dries quickly: "With regard to the slow-drying varnishes you are certainly right in that it is still almost universally true that the slow-drying varnishes have a greater durability than the quick-drying. We do claim and are ready to prove, however, that Valspar has as much and more durability than the slowest-drying spar varnish. This is the result of an entirely new principle in varnish making."

Valspar is so well and favorably known by all yachtsmen that it is gratifying to note this statement of its makers, and to know that for hard service, such as it receives on the deck of a yacht, that Valspar not only has durability but will dry quickly as well.

For Keeping Your Tiller Line Taut

All those motorboat men who ever experienced the annoyance of slack tiller lines due to the stretching of the rope will appreciate a little device recently gotten up by Wilcox, Crittenden & Co., of Middletown, Conn., called the "Noslack" Adjustable Drum Steering Wheel. The picture here shows how it works. The drum on which the tiller rope is wound is in two parts, one end of the line being fastened to each part. These parts are held together by a dowel pin, and a nut in front of the steering wheel. By unscrewing a nut and pulling the front part of the drum out the two halfs can be twisted in opposite directions until the slack of the rope is taken up, when they are pushed together again, a number of holes in one part of the drum receiving the dowel in the other half. The nut in front of the steering wheel is then tightened, and you have just the proper tension of your steering rope. These drums will be supplied by the Wilcox, Crittenden Company, with steering wheels, at a very slight additional cost.



Wilcox-Crittenden Adjustable Drum for taking up slack of steering lines

Polarine

The Best Oil for all Motors

Reduces friction and wear. Gives highest degree of service. Will not congeal in the crank case, nor clog in feed pipes.

For sale everywhere

Half-barrel and barrels; one gallon and five gallon lithographed cans

WHERE TO GET SOCONY MOTOR GASOLINE AND POLORINE

Supply Stations where Power Boats can Load direct from our Tanks:

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Sea Gate	Atlantic Yacht Club.
Port Richmond, S. I.	S. O. Co., of N. Y.
Tottenville, S. I.	S. O. Co., of N. Y.
Tottenville, S. I.	John Preacher.
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Great Kills, S. I.	S. F. Flagg.

EAST RIVER

Ft. N. 10th St., Brooklyn	S. O. Co., of N. Y.
Ft. N. 12th St., Brooklyn	S. O. Co., of N. Y.
Ft. E. 120th St., Manhattan	S. O. Co., of N. Y.

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City Island, N. Y.	Robert Jacob.
City Island, N. Y.	A. Malakoff.
City Island, N. Y.	A. Duryea.
New Rochelle, N. Y.	A. Larson.
Mamaroneck, N. Y.	C. M. Baxter.
Port Chester, N. Y.	J. Capp.
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Port Washington, L. I.	H. Berg, Jr.
Glenwood Landing, L. I.	Fyfe & Hittorf.
Oyster Bay, L. I.	Oyster Bay Canal & Dock Co.
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Northport, L. I.	S. H. Lowndes.
Port Jefferson, L. I.	O. T. Fanning.
Greenport, L. I.	W. W. Griffin.
Fishers Island	A. H. Eldredge.

LONG ISLAND—SOUTH SHORE

Rockaway Point	P. H. Reid.
Canarsie	Perry Horton.
Babylon	W. E. Magee.
Babylon	F. Ockers.
Patchogue	W. R. Marran.
Sag Harbor	John Murphy.
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Yonkers	S. O. Co., of N. Y.
Yonkers	Corinthian Yacht Club
Tarrytown	Tarrytown Boat Club.
Tarrytown	TarrytownYacht Club
Nyack	Newburgh—Albany.
Catskill	Hudson—Poughkeepsie Yacht Club, Poughkeepsie, New York.

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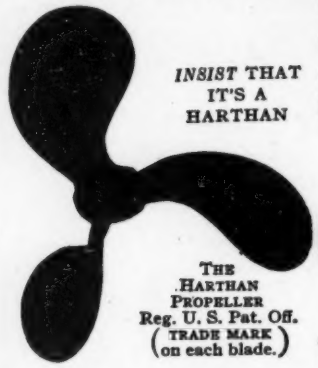
GENUINE HARTHAN PROPELLERS

Where lives are at stake one doesn't take chances, and the selection of these propellers in preference to all others for so important a responsibility where absolutely uniform reliability and dependability are all important, speaks for itself.

All Genuine Harthan Propellers, whether for

SPEED, CRUISING or TOWING,

measure up to the highest possible standards. They are the wheels for those who want the **best.** They are no more expensive than most goods of inferior quality.



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THE HARTHAN PROPELLER Reg. U. S. Pat. Off. (TRADE MARK on each blade.)

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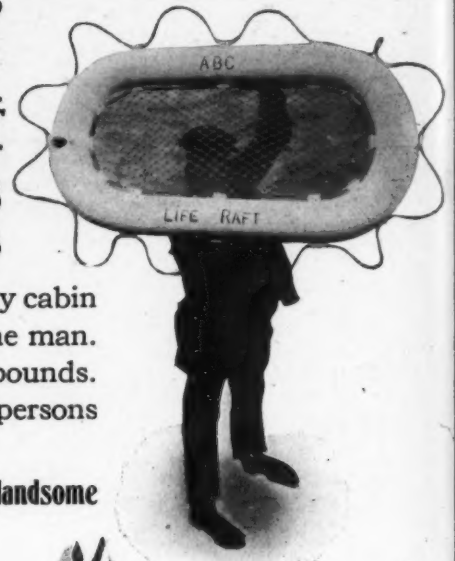
"For Life"

A B C LIFE RAFT

For Motor Boats and Yachts



Can be stowed on any cabin top. Handled by one man. Weight only 40 pounds. Will support eight persons in the water.

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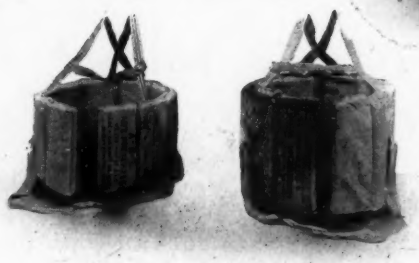

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A B C Life Preservers

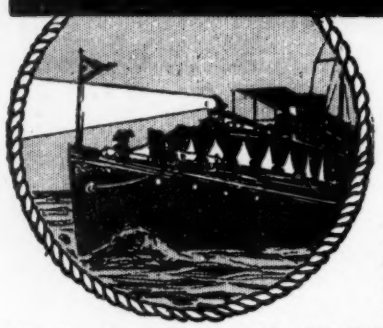
APPROVED BY U. S. INSPECTORS

Made from Balsa Wood Specially Waterproofed

SMALLER—LIGHTER—MORE BUOYANT THAN CORK

Welin Marine Equipment Co., 305 Vernon Avenue LONG ISLAND CITY, N. Y.

Dayton Launch Lighting Outfits

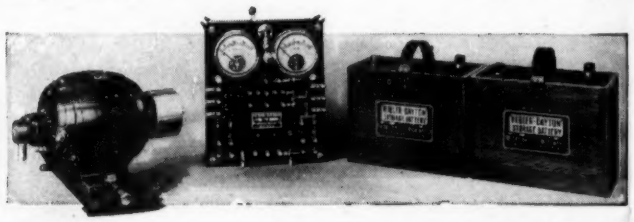


Have Electric Light This Season

Make up your mind now to have electric light in your boat this season. Don't put up any longer with smelly, dangerous kerosene lamps. A cabin flooded with light, a strong searchlight, bow, port and side, riding and tail lamps—all at your command by a turn of the switch, whether your engine is running or not. Adds 100 per cent to the enjoyment of your boat; eliminates the danger and trouble. Our outfit also insures an unfailing source of ignition current. Write for complete description of our outfits today.

The Dayton Electrical Mfg. Company

99 Emily Street **DAYTON, OHIO**



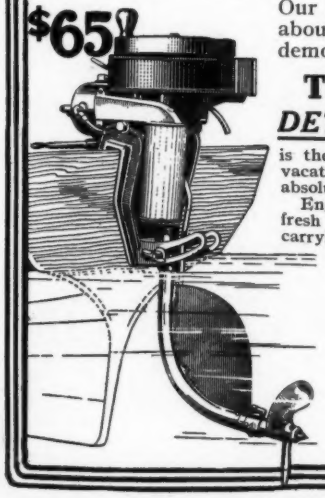
The Row Boat Engine that is Mechanically Better

At last!—the right idea in portable motor construction. A brand new principle—no gears used.

The Gray Gearless not only makes a motor boat of any row boat, but it makes a **better motor boat**—a dependable motor boat—does anything that any portable motor will do and **does it better.**

Attaches to boat with two thumb screws—runs all day on a few cents worth of gasoline. Clean—simple—sure—safe. Has **more power, less weight, fewer parts, longer life,** steers easier and gives your boat greater speed.

$65



Our literature gives you the **inside** facts about portable motors—and a pictorial demonstration of Gray Gearless superiority.

THE GRAY GEARLESS *DETACHABLE* BOAT MOTOR

is the RIGHT engine to carry with you on that vacation—hunting or fishing trip because it can be absolutely depended upon.

Engine shipped complete, ready to run in either fresh or salt water. Packed in a permanent, easy-carrying case. Built by the largest marine engine builders in the world and backed up by a guarantee that insures lasting satisfaction.

MAGNETO

In addition to our regular ignition equipment we can furnish either Bosch High Tension Magneto or Elkhart Magneto.

See your nearest hardware or sporting goods dealer or any Gray agent. If your dealer is not yet handling the Gray Gearless we can make immediate shipment direct from factory.

GRAY MOTOR COMPANY

6304 Gray Motor Bldg., Detroit, Mich.

Water will not put out gasoline fires

Pyrene
TRADE MARK

Fire Extinguisher

WILL

WATER! Perhaps miles of it all around you and a sudden Fire upon your Motor Boat. Could anything be more dangerous?

It is folly—ignorance or criminal negligence to put off from shore without a Pyrene Fire Extinguisher aboard.

Pyrene will instantly smother gasoline and oil fires in your Motor Boat.

Remember—On Land, On Sea—"*Safety First.*"

Write for booklet—proving the economy, efficiency and supremacy of Pyrene—Send postal to-day to nearest branch office.

Approved by the U. S. Steamboat Inspection Service

Brass and Nickel-plated Pyrene Fire Extinguishers are the only one-quart fire extinguishers included in the lists of Approved Fire Appliances issued by the National Board of Fire Underwriters.

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I Want to Go Cruising With You

All Yacht and Cruiser owners who are desirous of having the most modern, up-to-date equipment should secure

Evinrude Detachable Rowboat Motors

These Motors attach to any Rowboat or Dinghe in less than one minute and when not in use may be detached and hung up in the cabin of a large cruiser, or stored away in a convenient place on any small yacht or sail boat.

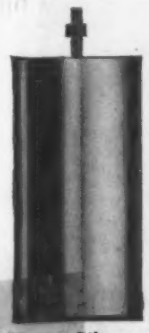
The "Evinrude" which is built by the largest manufacturers of rowboat motors in the world, (capacity for 1914, 60,000 "Evinrudes)" has many exclusive features. Among them the following are the most noteworthy:

Built-In Reversible Magneto

This Magneto, which is not affected by rain, waves or even complete submersion, is patented and completely controlled by the Evinrude Motor Company, who will vigorously prosecute any infringement. The "Evinrude" entirely eliminates the carrying of 15 or 20 pounds of batteries.

The Famous Maxim Silencer

Silencers which are built especially for the **Evinrude Detachable Rowboat Motor,** may not be procured for any similar device, because the Evinrude Motor Company has procured them exclusively for the "Evinrude." They eliminate the noise of operation, rendering the "Evinrude" the most silently operated motor of its kind in the world.



Maxim Silencer can be attached to all 1913 or 1914 models

Shock-Absorbing-Compensating Spring

In many portable motors the vibrations are transmitted to the tiller handle. This is not so in the "Evinrude," as the Shock-Absorbing Spring prevents this, and the Compensating Steering Device holds the tiller in the center of the boat, unless it is pushed to either side by the user. This eliminates the tugging of the tiller, which is necessary with most motors.

The "Evinrude" is on sale at Sporting Goods and Hardware Dealers everywhere

Large Illustrated Catalogue Sent Free Upon Request

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10 SIZES 13 NUMBERS

You can take in the slack of a rope; take in a reef and take in sail, but you can't take in a ship's cook with another brand of stove after he has been shipmates with a SHIPMATE. He knows it to be the old reliable—fair weather or foul.

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THE STAMFORD FOUNDRY COMPANY

Established 1830 STAMFORD, CONN.

KEROSENE
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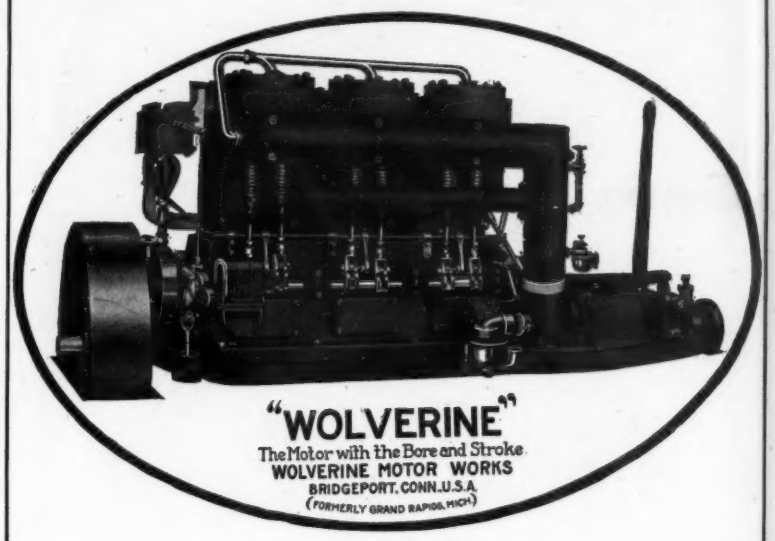

WRITE FOR CATALOG No. 70

Marine Hardware Headquarters

We beg to notify the *Dealers* in *Marine Hardware* that with the opening of our New Factory on June 15, 1914, we will be in a position to fill orders very promptly and hope this new addition to our manufacturing plant will mark an era of *Prompt Deliveries* an ideal we have long looked forward to.

Chas. D. Durkee & Co., Inc.

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Send 30 cents to pay postage on 1012 page Catalogue

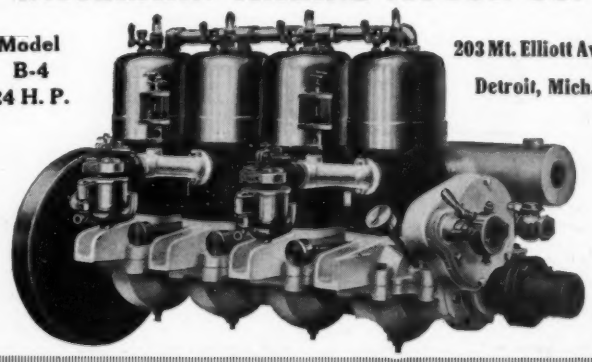
Rear boat, handicapped, wins race with Waterman Motor.

A WATERMAN MODEL B-4, 24 H. P.

drove the 17 foot "Impudence, Jr." to victory at late St. Augustine races, winning cup from 8 cylinder, 200 H. P. 26 footers in 15 knot handicap, repeating last year's success.
Model B-4, shown below, is light weight, racy, clean cut, and dependable to the limit.
Double factory facilities and increased output have reduced the price of Models B-2 and B-4, 25%.
Postal brings free book, quoting attractive prices on full line.

WATERMAN MARINE MOTOR CO.

Model B-4 24 H. P.



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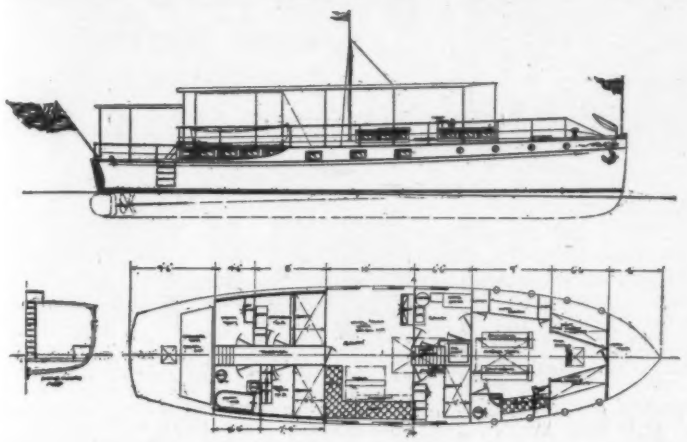

WE BUILD Yachts complete and there is no divided responsibility. Our 20th Century Motor, which we build in our own shop, is considered one of the leading engines. We are in position to build you a complete yacht, furnished and equipped, at prices that cannot be equaled when construction and finish are taken into consideration. Let US figure on your new yacht.

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THE NEW CUP YACHT RESOLUTE

fitted with Sails of

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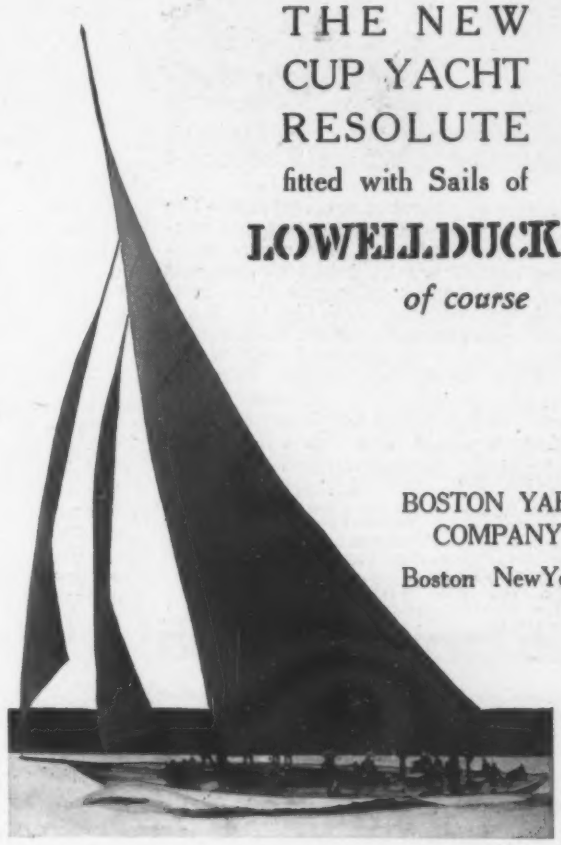

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Now Ready. Send in your application now with 20c. in stamps to cover postage. We refund this on your first order. This new book will be the most important Marine Supply Catalog in the trade.

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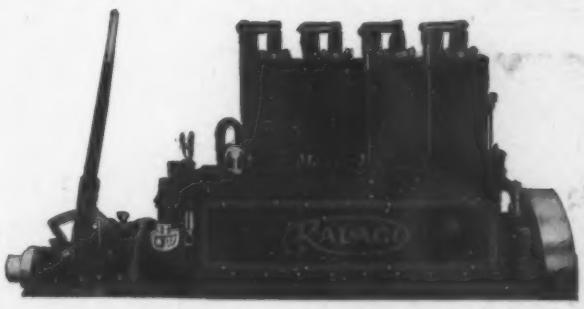

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Satisfaction

The satisfaction of having an engine that you are proud of means a great deal in motor boating.

Reliability

The utmost confidence in the reliability of the engine in your boat is what the owners of **RALACOS** have.

Built in sizes from 10 to 75 H. P. Two—Four—Six Cylinder

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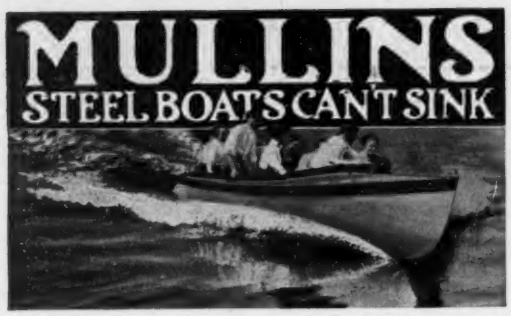
Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.



A constant source of pleasure not an expense—The first cost is the last cost—No expense to put in commission or maintain, outside the slight cost of painting—**Mullins Boats** are built like Government Torpedo Boats of tough, heavily galvanized steel plates with air-tight compartments like Life Boats **—Absolutely Guaranteed Against Puncture—** Never require calking or repair—Never waterlog—Never warp—Never dry out—No seams to open and leak—Designed by Whittelsey the famous New York Naval Architect—Equipped with Sterling 4 Cycle and Pierce-Budd and Ferro 2 Cycle Motors—Light—Powerful—Simple—Can be operated by the beginner—Never stall—Never balk at any speed—Silent under water exhaust. **Free Book** beautifully illustrated in color will tell you all about these boats and their wonderful construction. **Write For It.**

Mullins Cedar Canoes Can't Sink
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THE W. H. MULLINS CO.
The World's Largest Boat Builders
150 Franklin Street **Salem, Ohio**

Cost Less - Last Longer than Wood Boats

High Grade Heavy Weight Tanks

For Gasolene, Water and Air of any shape or dimensions desired for any pressure. We make only work of merit.

"Light Competition Work Not Wanted."

Galvanizing of all kinds of marine work.

L. O. KOVEN & BROTHER
50 Cliff Street : : : New York

The BEST in Marine Upholstery

Gives much more satisfaction and costs no more if you go to

M. W. FOGG
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NEW YORK CITY
MAKER, SINCE 1845

I can supply everything required to furnish and beautify the yacht—Mattresses, Cushions Draperies, Springs, Wicker Furniture (specially treated for outside use), Blankets, Bedding, etc. Quality of material and the personal element are what make my work attractive. Let me estimate.

SEND FOR BOOKLET.

With the Newfoundland Sealers

(*Continued from page* 347)

to rest, always on deck awaiting a chance to get below in the warmth and looking for a vacancy at the stove to do their cooking. The ship steamed about searching seals, picking up the remainder of the Grand Lake's pans, speaking every vessel of the fleet sighted, seeking to part with some of the shipwrecked men. Two other vessels had been wrecked that spring; their crews were scattered among the fleet and ships without castaways were without seals, and determined to stay out till the first of Mav. All efforts to induce the Grand Lake's men to board these partially fished vessels were useless. The men reasoned thus: "Our voyage is lost, the quicker we get home the better—all hands stick together and eat her out of grub and she'll have to bear up for home." It was an unpleasant situation for the Vanguard's captain, concerned with his duty to both his crew and the owners, yet sympathizing with the cargo of castaways.

At last the food ran very short, and the voyage was abandoned with a catch of only 8,000 seals, about one-third of a successful voyage.

Two weeks after the wreck, on the morning of April 20, port was made. At the dock eight of the lucky ships of the fleet were unloading, their crews receiving from $50 to $75 apiece. The Vanguard's men shared $28 each, and the Grand Lake's men, of whom Fate had robbed of the fruits of their toil, free transportation home at the convenience of the officials of the St. John's government. Such are the fortunes of the voyage.

Hints on the Use of Tools

(*Continued from page* 357)

on the vise or the bench. A worn-out file is a poor thing to "tote" around. Heave it overboard —first, however, getting a substitute.

One could go through the whole tool kit picking out horrible examples and pointing out whys and wherefores, and do's and don'ts, and so forth and so on. But the foregoing is sufficient to make a fellow think a little if he's at all interested, and, after all, that's the main thing. Once a man gets to thinking hard about a thing he'll soon get to the bottom of it. And this is just something to give the initial push.

A Deep Water Cruise

(*Continued from page* 356)

always something doing on deck, and all hands rather enjoyed the three days' loafing around.

The Peak of Teneriffe has an altitude of more than 12,000 feet, and can be seen under the most favorable conditions at 90 miles. A light sea haze had prevailed for a whole day as we neared the island, and we did no sight the huge cone until within 40 miles of it. Then it appeared, away up in the sky, like an aerial island having no terrestrial foundation whatever. Before sighting the mountain, we passed quite close to the Salvage Islands, just desert spots in the vast expanse of ocean, on which the swell broke in long lines of booming surf. There exists a pretty well authenticated story of a great pirate's loot of silver ingots, buried on Great Piton, and as we passed the skipper unfolded a little experience of his own.

He organized an expedition, some years before, to search for this treasure. He got together a party of amateur enthusiasts, chartered a small vessel, and landed on the Salvages. After a month of digging, the party gave up the search, for they found something that looked to be even more valuable than silver ingots. The yacht was loaded deep with rich gold quartz, and the millionaires sailed for home. They reached home safely with their golden freight, and, observing due secrecy, sent samples to the assayer. Their fond dreams of steam yachts, castles and country places were rudely shattered when the assayer's report was received. Their rich quartz was nothing more valuable than very low grade iron pyrites, excellent stuff for ballast—if to be had free! So much for buried treasure.

The principal city of Teneriffe is Santa Cruz, which is also the big port. But since our object in visiting the island was the one that brings nine-tenths of the visitors, the ascent of the Peak, we came to our anchor in the harbor of Orotava under the shadow of the towering Peak itself.

To be continued

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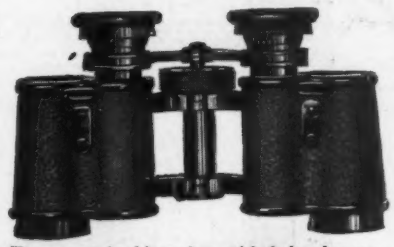

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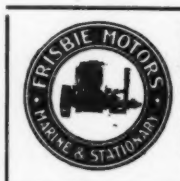

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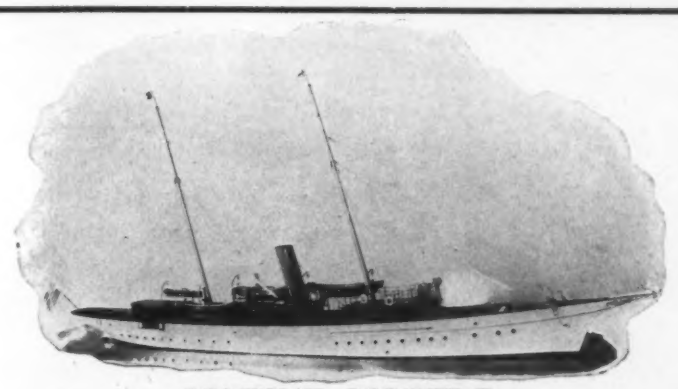

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Houseboats for Club Houses

(Continued from page 363)

with a workshop for the members, the steward's room and a large locker room. I have not made any drawing of the floor plan of this boat, for the plan would necessarily differ with each change in the length, while the profile would remain approximately the same. For use where space is more of a requirement than beauty, the Riverside type of house will undoubtedly be the most attractive. From the upper deck of this craft the members and their families can enjoy the view, and the rocking-chair fleet can hold forth. The runway or deck along the sides of the scow provides plenty of room for a boat landing and for handling supplies.

The average cost of a 40-foot boat that will provide space enough for the average small motor boat or yacht club will be in the neighborhood of $2,000; or if it is built by the members, about $1,200. The problem of lighting a club houseboat is simple. Ordinary kerosene hanging lamps will do in the majority of cases, although the installation of an acetylene or Prestolite gas tank would be a great convenience, as this would give all the advantages of the regular city gas. Electric lights are, of course, the most satisfactory, but they necessitate the installation of an electric lighting plant or connection with the current of the city or town supply.

If properly built in the first place, there is no reason why a club houseboat will cost any more to keep up than the more conventional type of club house ashore, but it is a certainty that the money saved from the landlord and the tax collector will more than pay for all the upkeep, and help to build a new club launch or provide some cups for the annual regatta.

Early Races for the America's Cup

(Continued from page 360.)

allowed. (He had already notified the committee that he sailed the third race without prejudice to that protest.) The third race he had already won, making two races, and that the series should be continued; in the event of his winning the sixth and seventh races he would claim and be entitled to the cup.

In his notification he goes on as follow: "The Livonia will be at her station to-morrow for race No. 6, if the committee decides to entertain my claim. If not, I hereby give you notice that I shall sail twenty miles to windward and back, or to leeward, as the case may be, and as already requested, I notify you to send a member of the club on board to see that the rules of the club are complied with. If no competing yacht is at the station, the Livonia will sail over the course, as also on Wednesday, the 25th, at the same time."

This claim was so preposterous that the New York Yacht Club committee did not reply to it, other than to acknowledge its receipt.

The next day a private match between the Livonia and the Dauntless was arranged and sailed off the lightship, twenty miles and return, windward and leeward. Dauntless won, but Mr. Ashbury claimed that as this was a private match and the New York Yacht Club did not send a boat against him, Livonia's going over the course entitled her to the sixth race. Likewise, the following day he was at the line ready to start, and, no boat appearing to meet him, he claimed that race, though he did not then even go through the formality of going over the course; and so, by virtue of four races thus won by Livonia, he demanded the cup. As Captain R. F. Coffin puts it, it was "something like the boarding house keeper's reckoning with the poor sailor: 'Five dollars you had, and five you didn't have, and five I ain't going to give you; an' that makes fifteen you owe me.'"

The New York Yacht Club couldn't see it that way, and Mr. Ashbury went home in a rare pet, charging the club with unfair and unsportsmanlike action, criticising its time-allowance rules, etc., and threatening if he ever came after the cup again to bring his lawyer with him and take the decisions to the courts.

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